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Monthly Cyclopedia and Medical Bulletin

(CONSOLIDATED)

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ORIGINAL ARTICLES AND SUMMARIES OF SELECTED ARTICLES.

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NEWS AND THERAPEUTIC HINTS.

Foreign Bodies in Nose.

For some years Felizet had been in the habit of extracting bodies by the direct method, but latterly he has abandoned this form of procedure in favor of the indirect force exerted by an injection forced into the other nostril. He has treated in this manner 31 cases, in 26 of which the foreign body was successfully delivered. (Med. Summary.)

Vital Statistics for 1913.

The United States Census Bureau places the indicated national death rate for 1913, as estimated from returns in the registration area, at 13.8 per 1000. For 1912 the estimated rate was 13.6. Of the States in the registration area, New York State led in the number of deaths, the rate being 15.2 per 1000. Minnesota was apparently the healthiest State, the rate being only 10.7, while Wisconsin was a close second with a rate of 10.9. Of the cities in the registration area, Memphis, Tenn., led with a death rate of 22.9, and Richmond, Va., was second with a rate of 22.4. Portland, Ore., showed the lowest rate, only 11 per 1000. Minneapolis and St. Paul were second with 13, and Milwaukee was third with 14.2. Death rates per 1000 for other cities were also announced, as follows: Los Angeles, 14.9; San Francisco, 16.7; Denver, 14.5; Chicago, 17.1; Indianapolis, 16.3; Baltimore, 19.4; Grand Rapids, 13.4; Kansas City, 16.3; St. Louis, 16.2; Omaha, 15.3; Newark, 15.7; Albany, 19.2; Buffalo, 17.2; New York City, 16.2; Rochester, 15.3; Syracuse, 16.3; Cincinnati, 17.2.

W. W. Barton's Favorite Formula.

℞ Codeine sulphate, gr. ij (0.01 Gm.).
Acetphenetidin, gr. xij (0.75 Gm.).
Aspirin, gr. xxxij (2 Gm.).
Cinchonidine salicylate, gr. viij (0.05 Gm.).

Make 8 capsules. One every hour or two.

With this formula, under appropriate conditions, the cure of patients becomes a case of *cito, tuto et jucunde*. It will symptomatically cure grip, and if given on the first day will in many cases produce such an improvement by the second as to prevent its complications and incidentally—*malum in se*—do away with the doctor. Dr. Barton has used this formula with satisfaction in most inflammations. There are other indications naturally suggested by its ingredients to which it seems excellently adapted. (J. A. M. A.)

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NOTES AND COMMENTS

NEWS AND THERAPEUTIC HINTS.

Simple Remedy for Burns.

Bamberger recommends the common household washing soda as a remedy for burns. The application is very simple. A crystal of soda is dipped into water and then gently rubbed over the burned spot. The pain ceases almost immediately in burns of the first degree. For second- and third- degree burns a compress wet with a 10 per cent. solution of the soda may be applied or the soda may be added to the continuous water bath. If used at once, the treatment seems to prevent the formation of vesicles. (Bamberger, in Münchener med. Woch.)

Hay Fever.

The following treatment is advocated by Hoffman. Eight days before the date of habitual recurrence he gives the following mixture:—

℞ Calcii chloridi,
Calcii lactatis, āā gr. lxxv (5 Gm.).
Syrupi, f℥vj (20 c.c.).
Aquæ, q. s. ad f℥vj (20 c.c.).
M. et ft. mist.
Sig.: A dessertspoonful three times a day.

Once fever has set in, the patient takes a dessertspoonful every two hours. The calcium salts raise the vascular tonus and diminish the excitability of the vasodilators. (Prescriber.)

Eczema.

Fellows claims that the following will give immediate relief and cure all forms of eczema:—

℞ Lac sulphuris,
Zinci oxidi, āā ℥ij.
Ichthyolis, ℥ss.
Mentholis, gr. xxx.
Petrolati, ℥iv.

M. Sig.: Thoroughly rub in each night after washing with sulphur soap or some germicidal soap. (Charlotte Med. Jour.)

Sodium Cacodylate in Keratoiritis Due to Lime Burn.

In the case of a man aged 21 who denied any specific infection, sodium cacodylate injections were given intramuscularly. Two or three days after the first injection the cornea gradually began to clear, and it continued to do so slowly and steadily until finally the whole cornea was absolutely transparent. (Allport, Frank and Alexander, and Rochester, in Ophth. Record.)

NEWS AND THERAPEUTIC HINTS.

Psychic State of Surgical Patient.

There is an interesting fact concerning the psychic state of the patient at the time of the operation. If the patient is in grave doubt as to whether or not he can survive the operation; if he lacks confidence in the hospital or in the surgeon, the patient has what in psychology is known as a low threshold, and if he goes under the anesthetic in this state the effect of any physical injury will be augmented, and throughout the entire anesthesia there is manifested the evidence of fear in the respiration and the pulse, and in the way in which he reacts to the anesthetic and the trauma of operation. These patients take the operation poorly. It is as though the patient went under the operation with his motor set at high speed, so that the energy of the body is consumed more rapidly, and hence the exhaustion or shock is increased. (Geo. W. Crile, in The Southern Medical Journal.)

Why Sodium Citrate Prevents Curdling of Milk in Rennin.

Van Slyke and Bosworth made a series of experiments to determine the reason why sodium citrate tended to prevent the formation of large lumps of tough, indigestible curds in the stomach. There has never been any basis of actual investigation to explain the favorable results. The authors from previous work felt that they had found a chemical explanation, and this series of experiments confirmed that opinion. The addition of sodium citrate to normal milk increases the amount of soluble calcium in the milk, this increase resulting from a reaction between the calcium casenate of the milk and sodium citrate, by which is formed sodium casenate and calcium citrate. The curdling of milk by rennin is delayed by the presence of sodium citrate; 0.4 mg. of sodium citrate per 100 c.c. of milk is sufficient to prevent the formation of a curd. The curd produced by rennin in the presence of small amounts of sodium citrate increases in softness of consistency as the amount of sodium citrate in the milk increases. At the point at which rennin fails to curdle milk, there is, in place of the calcium casenate of normal milk, a double salt of calcium-sodium casenate; this double salt, when rennin is added, is changed to a calcium sodium paracasenate, which, owing to the presence of sodium, is not curdled. The practice of adding sodium citrate to milk at the rate of 1 to 2 grains of citrate per ounce of milk appears to have a satisfactory chemical basis. (Amer. Jour. of Dis. of Children.)

NEWS AND THERAPEUTIC HINTS.

Buttermilk for Erysipelas.

Arnold recommends buttermilk highly as an application for erysipelas. Whatever the stage of the disease he says the spread of the infection is immediately checked, the pain disappears, and the whole morbid process rapidly aborts when it is used locally. (So. Clinic.)

Bronchitis in Asthmatic Cases.

Babcock, in the Journal of the Michigan State Medical Society, emphasizes the efficiency of apomorphine hydrochloride in doses of ¼ to ½ grain (0.015 to 0.03 Gm.), by mouth, in syrup of hydrochloric acid as an expectorant in cases of asthma with chronic bronchial catarrh. These and even larger doses of apomorphine can be tolerated by mouth without producing nausea. A combination which is likewise often useful is the following:—

℞ Tincturæ lobeliæ, f℥v (20 c.c.).
Fluidextracti grindeliæ, f℥j (30 c.c.).
Syrupi acidi hydriodici, q. s. ad f℥iv (130 c.c.).

M. Sig.: One teaspoonful in water three or four times a day. (N. Y. Med. Jour.)

Pain in Mumps.

℞ Guaiacolis, gr. xv.
Petrolati,
Adipis lanæ hydrosis, āā ℥iiss.

M. Ft. unguentum.

Sig.: Apply on gauze, over the parotid region, three times daily. (Critic and Guide.)

Severing the Umbilical Cord Without Tying.

Rachmanov reports (Zentralblatt f. Gyn.) a series of 16,000 births in which the cord was not tied unless there was some indication of a pathologic condition. In this method the newly born child is placed between the mother's legs and nothing done till all pulsations in the cord cease, about twelve to eighteen minutes. The uterus must in no wise be disturbed. The cord is then cut at a length of about 4 cm., and not tied unless bleeding is present. This is an indication of a pathological condition and must be treated as such. In all these instances there has not been a single case lost as a result of bleeding from the cord. In this method the cord does not dry and does not come off for five or six days, rather later than usual. The chief advantage appears to be that a firmer scar is formed at the umbilicus. (N. Y. Med. Jour.)

Boils.

The author recommends the use of piperin, the active principle of black pepper, for treatment of furunculosis. Having been from early youth susceptible to this infection himself, he gave the matter unusual attention, with the result that from that time he has treated practically all of his cases with this remedy. Piperin, as an intense capillary stimulant, brings about increased skin resistance, which causes an arrest of development in beginning pustules and subsequent immunization for that period of infection. Clay's original method was to administer it in quite large doses at first or until the physiologic effect manifested in an intense burning sensation over the entire body was produced, afterward giving it in smaller doses for a somewhat extended period. In many years of this treatment the author has had no failures except in the aged, or those with special complications. In younger persons it has, as a rule, proved superior to autogenous vaccines. Beginning with from 5 to 10 grains three times a day until the effect mentioned above is produced, he repeats at intervals or uses it continuously, as deemed best. Small furuncles often disappear without suppuration, while others become limited in their severity. This procedure is absolutely safe, and annoying symptoms speedily subside when the doses are lessened or discontinued. (John L. Dryer, in J. A. M. A.)

NEWS AND THERAPEUTIC HINTS.

Vomiting of Pregnancy.

Dr. Korek, in Deutsche med. Woch., says he administered 1½-grain tabloids of thyroidin in several cases of hyperemesis gravidarum, and observed a complete curative effect. In 1 case vomiting was observed to recur after cessation of the medication, but yielded again when the treatment was resumed. A noteworthy observation was that, contrary to the usual accelerating effect of thyroidin, the pulse rate was decidedly slowed by it in these cases. (Jour. Med. Soc. of N. J.)

Internal Treatment for Carbuncles.

Large doses of dilute sulphuric acid internally seem to have a very beneficial effect on carbuncles, boils, staphylococcic and certain streptococcic infections. Reynolds (Lancet) gives the dilute acid, B. P., 20 or 30 minims, diluted with 2 ounces of water, every four hours. Within twenty-four hours after the commencement of treatment, the infiltrated area becomes circumscribed, then the slough is observed to soften; during the next few days pus is freely discharged, and the whole affected area shrinks and healthy granulation tissue forms, filling up the cavity until the part is healed. The only external application is a dressing of carbolized vaselin (1 in 20). (Med. Review of Reviews.)

Brittle Nails.

This annoying condition may be benefited by using one of the following ointments, which should be spread over the nails at bedtime:—

℞ Mastiche, ℥ss.
Sea salt, gr. xxx.
Colophony,
Alum,
White wax, of each, ʒss.

Or this:—

℞ Extracti nucis vomicæ, gr. viij.
Pilocarpini nitratis, gr. ij.
Sodii arsenatis, gr. j.
Zinci oxidi,
Calcii glycerophosphatis, āā gr. xv.
Cocci, q. s. pro color.
Adipis lanæ, ℥ss.

M. Fiat unguentum.

(Gaz. des hôpitaux.)

NEWS AND THERAPEUTIC HINTS.

Management of Mucous Colic.

W. A. Edwards notes that Mummery uses belladonna to prevent spasm of the colon, in the following:—

℞ Tincture of hyoscyamus, f℥ss.
Tincture of belladonna, ♏vj.
Sodium bicarbonate, gr. xx.
Tincture of ginger, ♏xv.
Spirit of chloroform, ♏xx.
Peppermint water, q. s. ad f℥j.

This dose should be given three times daily. A laxative should be administered at the same time. (Medical Record.)

Diabetic Furunculosis.

Furunculosis in diabetics shows but little tendency to heal. The cause of this phenomenon seems to be an acidity or at least subalkalinity of the tissues. On the basis of this hypothesis, Brunner treated 2 cases of furunculosis in diabetics by means of alkaline irrigations. The abscess cavities were washed out daily with a 5 per cent. solution of sodium bicarbonate. Both cases healed promptly. He suggests that in operations upon diabetics good results might follow alkaline irrigation of the wound surfaces. (Brunner, in Med. Klinik, No. 6, 1914.)

Importance of Subjective Factors in Eating.

Sternberg has long been preaching that food is liable to fail of its chief purpose unless it appeals to the sense of sight, smell, and taste, with variety in the mode of preparation, appetizing seasoning, and the dishes freshly prepared. He thinks that much of what we are calling "vitamins" is included in the above. He has long been reiterating that the housekeeper's main dietary task is to cultivate the subjective factors, but, as a rule, this is disregarded as of little moment. He insists that our sense of smell and taste recognize chemical changes more sensitively than we can detect them with chemical tests. Warmed-over dishes, especially vegetables, do not relish as at first; some chemical change has occurred in them. This change has rendered them less wholesome for the person who finds them less palatable. Loss of appetite, disgust, nausea, vomiting, and finally some dietary deficiency disease form the sequence, and loss of relish should warn that we have entered on the downward slope. Sternberg emphasizes anew that the science of cooking is far more than merely applied chemistry and physics and application of heat. It is rather applied physiology of the senses, applied esthetics, and applied psychology. It is a matter of taste in the widest sense of the term. (Hahn. Mthly.)

NEWS AND THERAPEUTIC HINTS.

Brachial Neuritis.

The following is especially good in cases associated with rheumatism or gout:—

℞ Phenazoni, gr. v to x.
Sod. salicylati, gr. x.
Caffein. citrat., gr. v.
Sp. ammon. aromat., f℥ss.
Aq. chloroformi, q. s. ad f℥ss.

(The Practitioner.)

Cost and Sources of Radium.

There appears to be a general feeling that the price of radium is being artificially kept up, but evidence that such is the case is difficult to find. At present, radium is mainly derived either from pitchblende mines about Joachimsthal, in Cornwall, and elsewhere, or in lesser amount from some of the rich ores, such as dolomite. The ores for the most part are very low grade, containing quantities up to 3 per cent. of uranium oxide, and, paradox though it be, it is the high price of radium only that makes an increase of the supply possible.

It is to be recalled that radium is almost universally present, but it no more pays to extract it at a low price than it does to derive gold from sea water which contains it in appreciable amounts. From time to time information is received of the discovery of fairly rich deposits, but it is the common experience that when an offer is made to take over the entire output from such deposits none of the radium ever becomes available. Saxony, Russia, North America, and Australia are said to contain sources of radium and, although it would be premature to deny that these exist, there is certainly as yet no evidence of its being produced in such quantities as to affect the markets. As regards radium ores other than pitchblende, a plant has been erected in our country for the extraction of radium from carnotite, an ochre pigment, and there seems good reason to believe that a workable source of radium exists in the double phosphate of uranium and calcium, autunite, that is found in Portugal. The lava from Vesuvius, also, is steadily increasing in richness with every eruption.

There seems to be little doubt that the factor of monopoly enters into the price of radium, and were it possible to substitute, for radium, mesothorium or the Röntgen rays in medical work the price would fall. Another obvious factor is undoubtedly the labor of extraction, which becomes very great when the lower-grade ores are used. The estimates as to the quantity of radium available at the present time are mere guesses, but it is generally believed that since its discovery not more than a little over an ounce has ever been put into circulation. The reserves held by manufacturers are not believed to be considerable, but, obviously, on this point there is no information at hand. Though the price of radium has fluctuated since its discovery and is much higher at present than at first, with the careful and thorough search that has been carried out for the sources of supply, it seems reasonable to accept the statement of the dealers that the price is being fixed by the law of supply and demand. It should be remembered that the erection of a plant for dealing with low-grade ore requires a very large financial outlay. This is being provided in various parts of the world and the supply is certainly on the increase, but the conditions of manufacture make it doubtful if the present high price will ever be considerably reduced, as, so far as the lower-grade sources are concerned, it is the cost of production rather than monopoly value that is the controlling power. (N. Y. Med. Jour.)

NEWS AND THERAPEUTIC HINTS.

Tar Paste in Dermatology.

The following paste will be found useful in a great variety of itching skin affections, including most forms of eczema. It is contraindicated when there is moisture or much acute inflammation:—

℞ Picis liquid.,
Sulphur. depurat.,
Zinci oxidi, āā 10.
Adip. suilli, 30.

M. et ft. past. (Aoki, in Dermat. Woch.)

Alternating Hot and Cold Bath.

Dausset and Hanriot recorded the blood-pressure, etc., in a healthy person in a warm bath; then hot water was added to bring the water to 42° or 50° C. After one or two minutes of this, cold water was added until the temperature was felt too cold. The vascular system is exercised to a remarkable extent by these temperature changes in the twenty-minute bath, but the changes are so gradual that there is no sudden shock. They say that oxidation processes are promoted, heat production is regulated, and sluggish elimination whipped up while the reflexes are brought back into physiologic limits. (Hahn. Mthly.)

Psoriasis and Eczema.

In psoriasis, and in chronic indurated patches of eczema, white precipitate ointment is an excellent remedy, and is often advantageously associated with tar, especially coal tar. The following prescription is excellent:—

℞ Liq. carbonis detergentis, f℥j.
Hydrargyri ammoniati pulvis, gr. xx.
Lanolini,
Vaselini, āā ℥ss.

M. et ft. ung.

Sig.: Once a day well rubbed in.

Jadassohn recommends for psoriasis of the face and hands:—

℞ Liq. carbon. detergentis, 2 to 20 parts.
Hydrarg. præcip. alb., 5 to 10 parts.
Adipis lanæ, 50 parts.
Ol. oliv., 20 parts.
Aq., q. s. ad 100 parts.

M. et ft. ung. (Montgomery, in Canad. Pract. and Review.)

NEWS AND THERAPEUTIC HINTS.

Corns.

℞ Resorcinolis,
Acidi salicylici, āā gr. xv (1 Gm.).
Acidi lactici,
Collodii ricini, āā ℥iiss (10 Gm.).

M.

Apply on five or six successive days, soak feet, and remove collodion; the corn usually comes with it. Repeat the process if necessary. No corn, no matter how long it has existed, will withstand this treatment. (Gaucher, in Quinzaine thérapeutique.)

Recumbency in Pott's Disease.

The spine should be rigidly supported while the patient lies upon the back. A most efficient means to accomplish this is to place the patient in the posterior half of a plaster jacket which has been applied with the spine in a hyperextended position. Felt pads may be placed in the hollow of the cast beneath the kyphos from time to time, to increase the pressure over the deformity and produce correction. This treatment may be continued for a year or eighteen months, always in combination with as complete out-of-door life as possible. (Geo. B. Packard, in Am. Jour. of Orth. Surg.)

Inhalation in Chronic Laryngitis.

There are two methods of inhaling: In the first the medicament is atomized to impalpable vapor by means of sterilized air in a cabinet, while in the second the inhalation is through a sterile mouth-piece or nose-piece.

The medicated steam, a mixture of compound tincture of benzoin, 1:20, is inhaled at a temperature of from 140° to 170° F. for about fifteen minutes. This is followed by inhalations of oily substances without the aid of heat, either of the two following being used:—

℞ Camphoræ, ℥j.
Olei picis liq., f℥ij.
Iodi, gr. xx.
Creosoti, f℥j.
Mentholis, gr. xxx.
Olei sesami, f℥iv.

or a 5 per cent. solution of the following:—

℞ Iodi, ℥vj.
Acidi oleici, ℥ij.
Olei paraffini liq., f℥iv.
Olei sesami, q. s. ad Oj.

The patient remains indoors for from fifteen to thirty minutes after each treatment. The use of tobacco is prohibited. (E. Mayer, in Merck's Archives.)

Chronic Cystitis.

Both boric acid and benzoic acid are useful adjuvants to the treatment of chronic cystitis through their antiseptic effect on the urine, each in 5-grain doses, rapidly increased to 10 grains. They may be given jointly, as in the following prescription:—

℞ Sodii biboratis,
Acidi benzoici, āā gr. x.
Infusi buchu, f℥ij.

M. Sig.: Three times a day. (Tyson, in Merck's Archives.)

NEWS AND THERAPEUTIC HINTS.

Apomorphine in Insomnia.

According to Dr. Francis Hare, apomorphine is an excellent remedy for the insomnia of alcoholism. In acute cases 1/10 grain is recommended hypodermically, but care must be taken not to induce vomiting. In chronic conditions 1/40 grain, given hypodermically, as a rule, produces a short sleep. This observation is worthy of further investigation. (Brit. Med. Jour.)

Irritable Cough.

Luff has found the following a very useful mixture for the relief of irritable cough, and especially of postinfluenzal cough:—

℞ Morphine hydrochloride,
Heroin hydrochloride, of each, gr. 1/24.
Apomorphine hydrochloride, gr. 1/48.
Dilute hydrochloric acid, ♏ v.
Syrup of wild cherry, f3ss.
Chloroform water, q. s. ad f3ss.

This dose should be taken every four hours. The medicine is very palatable and the presence of the hydrochloric acid effectually prevents the precipitation of any of the alkaloids. (The London Lancet.)

NEWS AND THERAPEUTIC HINTS.

Buzzing in Ears.

According to S. Weissenberg, atropine is beneficial in many cases of buzzing in the ears without recognizable cause. The following prescription is employed:—

℞ Sol. atropin. sulph., 0.01 : 15.

Sig.: Ten to 15 drops three times a day.

(Critic and Guide.)

Effect of Belt Constriction on Hunger.

Investigations were undertaken by Prof. Dr. Rudolf Lennhoff, as reported in the Vossische Zeitung, to ascertain in what manner constriction about the body in the region of the stomach lessens hunger, which is a plan sometimes followed by hungry tramps and others. Metallic substances were mixed with solid food, such as potatoes, and fed to men. The X-ray revealed that a contraction of the stomach took place and a relatively small quantity of the food proved sufficient to satisfy the appetite. When liquid food was given, the contraction was considerably less and a larger quantity was necessary for satiation. Another experiment in which the liquid food was introduced through a tube showed that twice the quantity was required to produce satiety. The conclusion was that the stimulus of swallowing by reflex action caused contraction of the stomach and produced a lessened sense of hunger. This suggested that artificial pressure over the stomach by means of a belt, as in the case of the tramp, produced the effect, and this proved to be the case. In order to eliminate the effect of suggestion, the experiment was tried on insane persons, who were allowed to eat as much as they pleased; during the experiment they ate less. The conclusion is that the sense of satiety is influenced by the act of swallowing, which causes contraction of the stomach. (Merck's Archives.)

Migraine.

M. Allen Starr has recommended the administration of the following pill in cases of migraine associated with intestinal fermentation:—

℞ Sodium phenosulphonate, gr. v.
Potassium permanganate,
Betanaphthol, of each, gr. j.

This pill should be coated with salol to insure its entrance into the bowel before it is dissolved. The dose is 1 pill after meals and at night. (Can. Lancet.)

NEWS AND THERAPEUTIC HINTS.

Combined Action of Medicaments in Cardiac and Renal Dropsy.

Cases of cardiac or renal dropsy in which digitalis, calomel, or diuretin has proved unavailing often, in the writer's experience, respond to a mixture of various diuretics and cardiac tonics. He is accustomed to prescribe:—

℞ Inf. e fol. digital. titr., 1.
Bulb. scill., 5.
Aq. destillat., 150.
Euphyllin,
Tr. strophanthi, āā 2.5.
Spartein. sulph., 0.1.
Tr. opii simpl., 1.
Mucilag. gum. arab., q. s. ad 180.

M. D. S. (Strauss, in Therap. Monatsbl.)

Antidote for Bichloride Poisoning.

A new chemical antidote for poisoning by bichloride of mercury is announced. It depends upon the prompt conversion of the bichloride into calomel upon contact. To produce the change sodium phosphate is suspended in tepid water (not hot water). Sodium bicarbonate, chemically pure, is slowly added, stirring until effervescence ceases and the solution clears. Then a little more of the sodium bicarbonate is added to insure its excess. This solution, it is claimed, instantly converts the bichloride to the mild chloride, which can then be removed by a dose of castor oil. It is very necessary that the sodium phosphate shall be chemically pure.

The antidote must be used within from fifteen to thirty minutes after the ingestion of the poison to be entirely effectual. If further experience demonstrates its usefulness, it remains for the druggists everywhere to have the necessary reagents ready for prompt application. (So. Med. Jour.)

Gastric Vertigo.

Robin recommends the following as an effective remedy in cases that do not respond to the use of simple carminatives and antacids:—

℞ Magnesium hydroxide, 0.3 Gm.
Prepared chalk,
Sodium bicarbonate, of each, 0.2 Gm.
Powdered nux vomica, 0.03 Gm.
Powdered belladonna root, 0.02 Gm.

This powder is to be taken after each meal, and at bedtime. (Bulletin général de therapeutique.)

NEWS AND THERAPEUTIC HINTS.

Lotion for Urticaria.

Bouchard employs the following:—

℞ Cocaine hydrochloride,
Chloral hydrate,
Resorcin, of each, 2 Gm.
Glycerin, 6 c.c.
Alcohol, 40 c.c.
Cherry-laurel water, 60 c.c.
Distilled water, 90 c.c. (Med. Record.)

Phthiriasis of the Scalp.

Broco and Jacquet write that in the treatment of pediculosis a 10 per cent. calomel ointment always gives good results. For twenty-four hours after the application of the ointment the scalp is kept covered with an impermeable dressing, except where there are large ulcerated areas.

The authors have also found of value the following solution applied on absorbent cotton:—

℞ Tinct. benzoini, ♏L.
Hydrarg. chloridi corros., gr. xv.
Acidi acetici glacialis, f℥j.
Aquæ cologniensis, Oj.

M. et ft. solutio. (Jour. de méd. de Paris.)

Cholera Morbus.

In the later stages of an attack Wilcox recommends the following:—

℞ Acidi sulphurici aromat.,
Ext. hematoxylon, āā ♏vj.
Spt. chloroformi, ♏xij.
Fl. ext. ipecacuanhæ, ♏iij.
Syrupi zingiberis, q. s. ad f℥j.

M. Sig.: One dose every two hours.

(Merck's Archives.)

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℞ Sodii citratis, gr. lxxv (5 Gm.).
Syrupi, f℥v (50 c.c.).
Aquæ destillatæ, f℥viij (250 c.c.).

One tablespoonful is to be taken after each meal and also three or four times a day between meals. (Marcos, in Quinzaine thérapeutique.)

Salvarsan in Erosive Balanitis.

Erosive balanitis is not at all uncommon in this city, but many practitioners continue to class it as chancroid. The recommended methods of treatment—slitting up the foreskin when required, bathing with peroxide of hydrogen, etc.—are absolutely useless in many cases, as the numerous fatalities show.

As this disease is in part a spirochetal affection, the writer has for the last year been using salvarsan intravenously, just as in syphilis. In some cases the resultant cure has been almost magical in its rapidity; a few seemed to be unaffected by it, and in 1 case seen two weeks before death it was apparently of no benefit. (A. Davidson, in Calif. State Jour. of Med.)

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The following combinations are recommended:—

℞ Sulphuris præcip., ℥j.
Zinci oxidi, ℥iv.
Olei amygdalæ (expressed),
Lanolini, āā ℥j.
Ext. violet, ℥j.

M. Sig.: Apply freely two or three times daily; or:—

℞ Ichthyol.,
Olei amyg. (expressed), āā f℥ij.
Ung. aquæ rosæ,
Lanolini, āā ℥vj.
Olei rosæ, gtt. ij.

M. Sig.: Apply two or three times daily; or:—

℞ Olei olivæ, f℥iv.
Mentholis, gr. xv.
Ung. aquæ rosæ,
Lanolini, āā ℥vj.

M. Sig.: To be used several times daily. (Medical Sentinel.)

Aluminum Lactate Solutions.

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Original Articles and Summaries of Selected Articles

EXOPHTHALMIC GOITER: ITS PATHOGENY AND TREATMENT.

By F. GRAHAM CROOKSHANK, M.D. Lond., M.R.C.P.,

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THIS disorder was first described by Parry, of Bath; although, since the later writings of Graves and of von Basedow have everywhere been accorded the greater recognition, it is with their names rather than with his that the affection is associated.

Ever since, in the early nineties, attention first became directed toward the striking fact that many of the symptoms of exophthalmic goiter stand in striking antipathy to those of a person whose thyroid gland has been removed by art or rendered useless by disease, the notion has widely prevailed that the disorder is primarily due to an affection of that organ.

And moreover, since so many of the symptoms are such as may be produced by overdosage with thyroid substance, and since also actual examination of the gland pretty constantly reveals such hyperplasia as is thought to indicate increased functional activity, it has come to be accepted by most, if not by all, that the nature of the trouble is one of functional excess, associated with increased capacity for secretion. The further suggestion that this excess, or increase, is primary, idiopathic, or essential has particularly commended itself to those thoroughly British pathologists who love to speak of disease as a morbid entity, something precipitated suddenly and completely, like a baby in a gooseberry-bush, "out of the everywhere into here."

Belief in the primarily thyroidal nature of exophthalmic goiter has, moreover, this recommendation to the otiose, that it shelves inquiry as to why or

how the thyroid should suddenly depart from the primrose path of physiologic righteousness, and disposes summarily of inconvenient clinicians who have thought to establish causal relations, not easily explained, between the disease and various antecedent conditions and circumstances.

But no state, either physical or metaphysical, is ever primary or idiopathic, unless, indeed, we persuade ourselves that, by the use of these words, we are merely admitting and not seeking to conceal our ignorance of the necessary chains of causation. It is obvious that, were exophthalmic goiter really nothing but the clinical expression of an idiopathic hyperplasia of particular nature, there would clearly be but one rational method of treatment: to trim the gland to proper proportions. But, since there is reason to believe that the activity and overgrowth are either the result of wanton provocation by some vicious agency, or of the nature of a purposive, albeit indiscreet response to some urgent call for the fulfillment of duty,—carried too far, as so often are well-intentioned efforts,—it is plainly our duty to seek out and remove the incitement, in the hope that restoration to a state of quiet efficiency will ensue. Clearly, too, the actual removal of glandular tissue is not rational unless the tendency to hyperplasia and functional excess has acquired such impetus that its progress cannot be stayed or its effects otherwise combated.

We must not, then, without full conviction, assent to investigations that are arrested at the thyroid gland itself; or to the claim that thyroidectomy affords the only rational and effective plan of treatment, and should therefore be resorted to at the earliest opportunity.

It is sometimes suggested that belief in an essentially thyroidal pathogeny, and a settled conviction in favor of surgical intervention, are justified by a study of those cases which, on the continent of Europe, are spoken of as instances of primary Basedow's disease. But, if we press for a definition of these cases, we are told, in approved fashion, that they are those due to primary hyperplasia, and for which surgical intervention is to be recommended.

Even so are archdeacons said to be high ecclesiastic personages who perform archidiaconal functions.

Moreover, we cannot refuse to include within the ambit of our purview those many cases of which the signs and symptoms, if referred to the classical standards of the textbooks, are found to be anomalous, or incomplete, as well as sometimes transient.

It does not advance our knowledge, or clarify our thought, to speak contemptuously of such as *formes frustes*—unworthy instances of what disease should be. Rather should they be investigated on their merits, as likely to afford us hints on the pathogeny and treatment of the more serious and progressive cases to which alone some would attach the label of true "exophthalmic goiter."

Indeed, it cannot be said that, after all, everyone is prepared to admit the preponderating influence of the thyroid gland in even these latter cases. For some believe that certain of the symptoms, if not sometimes all the symptoms, may be of nervous origin; while others, admitting the great part

played by the thyroid, see evidences of depraved rather than of excessive function,—of dysthyreosis, that is, rather than of hyperthyreosis,—while others, again, think that the thyroid is only one of the organs principally at fault.

It therefore becomes necessary to discuss, albeit with the scantiest justice, what we think we know concerning the functions of the thyroid gland, before attempting to allot its responsibility, or to reconcile conflicting views in respect of the pathogeny of the various groups of cases that come before us.

We speak of the thyroid gland as endocrinic, yet of the actual nature of its secretion little is really known. It is generally believed, however, that a substance of peculiar albuminoid construction is elaborated; that this is sometimes stored as colloid, but normally, after activation by the iodine brought to it by the blood, passes into the general circulation in a form spoken of as iodothyrin. It is to this iodothyrin that the various pharmaceutic preparations of the gland owe their practical efficacy.

But whether or no this iodothyrin presents the only secretion of the gland is not yet settled, for while some believe that there are at least two internal secretions, thus resolving many puzzling difficulties, others are convinced that there is but one secretion, acting differently on different structures, or perhaps under different circumstances.

However, the functions of the thyroid gland are usually spoken of as concerned with certain nervous mechanisms, with the work of other ductless glands, with processes of metabolism, both destructive and constructive, and with the organization of defense against parasites and poisons.

It may be said that thyroid substance, by virtue of the iodothyrin it contains, exerts a stimulating influence on all parts of the nervous system, but particularly on that part spoken of as vegetative, and to use the terms of the Viennese, upon both its autonomic and sympathetic components, although upon the latter preponderatingly.

That there is interplay with other endocrinic glands cannot for one moment be doubted, and so far as our present knowledge goes, the thyroid, the chromaffin system, and the infundibulum are ranged together in mutual support, and in opposition to the pancreas and parathyroids, though certainly the good fame of the latter structures has been somewhat blown upon of late.

But there is also close association with the activities of the sexual organs, of women, at any rate, and there are some indications of antagonism, at some periods of life at least, in respect of the thymus.

It should not be forgotten, too, that if the pineal gland seems to restrain the ripening of the male gonads, it cannot be denied that without the kindly influence of the thyroid they ripen even more tardily.

The metabolic functions of the thyroid are indeed obscure. On the one hand, the task of the healthy organ seems mainly destructive, quickening the disintegration of protein matter and hindering the accumulation of fat. On the other, its business seems essentially constructive, for skeletal growth is stimulated, calcium is rapidly assimilated, even if afterward hurried away,

and, as Biedl insists, the destructive effect on carbohydrates of the internal secretion of the pancreas is restrained.

But we do not know whether these tasks in respect of other ductless glands and metabolism are performed directly or through nervous agencies. If directly, surely there must be more than one hormonic substance; if indirectly and through nerve, we may assume the notion of a single polyvalent hormone, capable of eliciting opposed effects according to the particular nervous apparatus that in different circumstances is selected.

That the thyroid gland opposes or destroys not only some of the waste of normal metabolism, but certain abnormal endogenous poisons, as well as micro-organisms and their toxins, is generally believed, but it is still debated, with some degree of acerbity, between the followers of Blum and those who disagree with him, whether this function is discharged in the blood by the products of secretion or in the tissues of the gland itself.

On the whole, it is perhaps most likely that the purely defensive and destructive functions of the thyroid appertain to the organ itself and not to the internal secretion, so that we may look upon the gland as, incidentally, a kind of trap or catchpit in which obnoxious material is destroyed and its elements converted to good purposes. Even so are products of waste and of disintegration converted by the cells of the liver into what Glisson called "bile: that variously beneficial balsam of the body."

It is on the whole now generally agreed that, though sometimes the case may be otherwise, as a rule the symptoms of Graves's disease are produced by the action on various tissues and mechanisms of a substance, or substances, elaborated by the thyroid, and differing from those normally produced mainly in terms of quantity.

But the question must be put: Is the thyroid in Graves's disease, when this is the case, always or ever the first organ in the body to display such aberration of function as is really a part and not merely a cause of the disease?

We must certainly agree that in certain cases of syringomyelia, etc., even though rarely, signs of Graves's disease—principally vasomotor and ocular—may arise as a result of central disturbance of the nervous system. But then such cases are not recognized as examples of the disease we are discussing.

On the other hand, exophthalmos, vasomotor disturbance, and other indicia do occur in cases of direct mechanical interference with the cervical sympathetic by tumors, without primary derangement of the thyroidal functions. And, more strange still, such results may follow the pressure on the cervical sympathetic of a goitrous enlargement of the thyroid itself.

The observation of such cases does, indeed, make it hard to deny that a primary derangement of the sympathetic, set up, as some maintain may be the case, by shock, by fright, or by long-continued emotional stress, will sometimes give us the clinical picture of true exophthalmic goiter. For the work of Victor Cyon and others has made it clear that stimulation of the

sympathetic may bring about increased vascularity, active congestion, and, indeed, even secretory hyperplasia of the thyroid itself.

It is at least likely that some of Kocher's cases of vascular Basedow's disease are really of this nature; and we may agree to find in sympathetic derangement, sometimes, at all events, if not the ultimate causative factor in the production of the disease, at any rate an occurrence that, in the pathogenic sequence, is antecedent, rather than consequent, or even concomitant to the thyroidal disorder and hyperplasia.

In another group of cases—barbarously spoken of as that of the "Basedowifying goiters"—the presence of what McCarty would call a retained thyroid unit of fetal type appears to induce overactivity and hyperplasia of so much of the thyroid as is supposedly normal in character, with the production of a Basedowian syndrome.

It is easy to suppose that, in these cases, the secretory hyperplasia stands for an attempt at adjustment, but some think it is rather the result of irritation. Still, sometimes the healthy part of the thyroid does appear to vicariously assume the duties abnegated by other portions; and there are the parallel instances in which *formes frustes* arise when the ovaries are in default, at puberty or the menopause, in some cases of pituitary deficiency, and perhaps in some cases of hypoadrenalism. Indeed, so often do symptoms of Graves's disease arise when there is disturbance of the pluriglandular balance that we have fair justification for defining another class of case in which there is *prethyroidal* disturbance of function,—but this time endocrinic rather than nervous,—and sometimes some of the symptoms are due to such disturbance.

But, beside these instances of prethyroidal derangement of nervous and endocrinic structures, we have to reckon, in the pathogeny of exophthalmic goiter, with metabolic perversions or irregularities and with certain infections and intoxications of extrinsic origin, not so much as integral parts, but as provoking agents of the disease. The clinical relationship, on which Mr. Farrant has insisted, between cirrhosis of the liver and exophthalmic goiter exemplifies the first statement, as does also the part played, according to Chalmers Watson, by certain foods in altering the condition of the thyroid, and some obscure, but nevertheless fairly definite, relation between irregularities in calcium metabolism and the disease. Nor is Sir Arbuthnot Lane without grounds for asserting that chronic intestinal stasis is one of the important antecedents; and there are other possibilities. But, in quite a large number of cases, Graves's disease appears to follow certain forms of infection and exogenous intoxication, local or general, grave or minimal, acute or chronic. Among these must be noted the specific fevers, some forms of tuberculosis—much insisted on by the French—and some quasi- as well as genuinely rheumatic affections. It is interesting to note that Parry's first case was that of a woman who, shortly before the onset of her disorder, had suffered from what we should now recognize as acute rheumatoid arthritis; and equally so, to remember that it was Kent Spender, another physician of

Bath, who first drew attention to the tachycardia and pigmentation so frequently seen among invalids at that famous resort.

Yet Spender did not recognize that he was but observing the frequent occurrence of *formes frustes* of Graves's disease, about the time of the menopause, in women who are the subjects of chronic infective arthritis, due to pyorrhea, to pelvic disorders, or whatnot. All these facts have received added interest from the work of Farrant, who has shown that certain infections do, under certain circumstances, indeed set up hyperplasia of precisely the nature found in exophthalmic goiter.

So far, then, as the ground has been traversed, we have found that, if the normal thyroid exercises function in respect of nervous mechanisms, the endocrinic balance, metabolism and defense, and if also the signs and symptoms of the disease may be due to aberration or excess in respect of the first three of these, so have we grounds for believing that nervous derangement, disturbance of endocrinic balance, metabolic perversity and infection or exogenous intoxication may each and all be clinical antecedents of the disease. To say, then, that the hyperplasia and functional perversion of the thyroid in Graves's disease is often due to definite call on the energies of the organ in respect of one or more of its accustomed activities, or at least to provocation through one of the accustomed channels, seems almost unnecessary.

But is hyperthyroidism always thus produced? and why does what should be an orderly adjustment so often pass into a progressive disorder?

The first question can hardly be definitely answered save by an appeal to the *a priori* improbability of all allegations of primary or idiopathic disease, and by the investigation of individual cases.

The second question is less difficult of resolution. Certain experimental findings are obviously relevant: The first that, as Halstead has shown, an excess of iodothyrin in the blood leads to thyroidal hyperplasia; the second, that such excess stimulates the cervical sympathetic; and the third, already mentioned, that stimulation of the cervical sympathetic in its turn leads to increased vascularity and secretory activity of the thyroid.

It is fairly obvious, then, that in many cases of progressive nature one may have to deal with the establishment of a vicious circle, initiated in one of the ways that have been stated, continued by the excess of iodothyrin poured out, and completed by the action, on the thyroid itself, of the nervous and endocrinic structures thereafter involved.

But why are only *some* cases progressive or typical, as is said?

We may well believe that sometimes provocation ceases, that at others there is a favorable readjustment of the endocrinic balance, that the circumstances of the patient's life may be ameliorated, and that, though to a surgeon this may appear an extreme hypothesis, even the physician's remedies may sometimes prove of some service.

But when, on the other hand, the disease progresses in spite of every care and favoring circumstance, what are the factors that favor the closure of the vicious circle?

Two lines of thought opened up by recent work may perhaps help us in this respect.

It will be remembered that Eppinger and his coadjutors have shown good grounds for believing that while in health the due balance of function, in respect of the mechanisms controlled by the vegetative nervous system, is procured by orderly opposition between its autonomous and sympathetic components, yet, in states of ill health, there may prevail either what is called vagotonus or sympatheticotonus.

Moreover, when vagotonus, or when sympatheticotonus obtains, there is increased susceptibility to the action of vagotonic or of sympatheticotonic drugs.

Thyroid substance contains sympatheticotonic ingredients, and when sympatheticotonism is pronounced the effect of its administration is exalted.

But there is also reason to believe that these apposed types of nervous balance represent not merely states set up in disease, but kinds of constitution or of diathesis.

At any rate it is obvious that if experiment is to be trusted a state of hyperthyroidism is more easily to be induced, and will sooner become vicious and progressive in one who is markedly sympatheticotonic than in one who is not. (As a matter of fact, the case is perhaps less simple, for Eppinger believes that some of the signs of Graves's disease are due to autonomic irritation. But the point remains that "hyperthyroidism" is more readily produced and continued in those who are the subject of a certain type of nervous balance than in others.)

The second line of thought to which I have referred leads from the little-appreciated fact that in most, if not all, cases of exophthalmic goiter submitted to examination the thymus is found to be persistent or enlarged. It is probable, certainly, that there is normally some physiologic antagonism between the thymus and the thyroid, at any rate at certain times of life; but that at other times and in other respects they may be complementary. It is, therefore, difficult fully to elucidate the connection between a persistent thymus and Graves's disease, but of the fact and its importance there is no question. It is true that in it some see the functional resurrection of a defunct organ to balance the vagaries of another. But others, since so many persons dying of exophthalmic goiter present signs of *status thymicolymphaticus,* think that exophthalmic goiter is more prone to arise, given adequate occasion, in persons who are the subjects of persistent thymus than in those who are not—perhaps because the vicious circle may close with greater readiness when there is a certain type of endocrinic balance of developmental origin.

Indeed, the subjects of exophthalmic goiter are often those who display unusual physiologic and morphologic features, and some of the peculiarities sometimes noted in the skin and appendages as signs of the disease are really indications of underlying imperfections in orthogenesis, and it is possible that there is a special correlation between types of nervous and endocrinic balance.

In brief summary of what has been said, let me suggest that the thyroidal functions are complex, and the secretion polyvalent; that the hyperthyroidism of Graves's disease may be provoked by agencies as various as are the functions of the organ; and that progression in a vicious circle happens most readily to those who by constitution, or by acquisition, possess a particular type of nervous or of endocrinic balance.

If anyone is still determined to maintain the primary or essential thyroidal origin of the disease, he should at least be prepared to say in what sense he uses language. I believe that the secret of those cases that cannot fairly be ascribed to the operation of everyday factors will ultimately be found hidden in those imperfect processes of development that are responsible for so much that is misunderstood in the pathogeny of disease.

How far do these considerations assist us in developing any rational basis for the treatment of the affection?

It is, in the first place, surely obvious that the arbitrary division we find consecrated in the textbooks, of treatment into medical and surgical categories, is both irrational and unsatisfactory, since the necessity for close co-operation, from the very first, between surgeon and physician is indeed imperative.

It is true that some surgeons, knowing the definitive, and often successful, results that attend their intervention, seem sometimes inclined to suggest that there is no medical treatment, and I admit that they are not without justification in ridiculing the jejune and often fatuous recommendations that are sometimes made in medical writings.

But, though the art of medicine may be, as compared with that of surgery, "a thing o' naught," I submit that the conventional prescription of a diet at once bland and nutritious, agreeable society, and a change to the seaside do not exhaust the resources of the modern physician. As Musser wrote in a valuable paper, published posthumously in the *American Journal of the Medical Sciences* for June, 1912, the surgeon is apt to do too much and the physician too little in the treatment of exophthalmic goiter. Experience shows us that, unless a vicious circle has been established, good results follow the discovery and removal of continuing causes for excessive activity of the gland, and reason tells us that whether or no any such continuing cause—nervous, metabolic, endocrinic, or infective—can be found, we must seek to oppose the ill effects in the system of an excess of iodothyrin, and at the same time to check its further secretion.

Here is work enough for the physician, although often indeed these indications cannot be fulfilled without surgical aid. Two special cases may be mentioned: the first when a simple goiter sets up irritation of the sympathetic; the second when a goitrous nucleus stimulates the rest of the organ.

Other opportunities for surgical assistance are not few; colonic stasis may be the peccant participant, and, in the view of some recent writers, the removal of the thymus should be early planned. But, speaking generally, the modification of nervous balances, of metabolic and of endocrinic irregularities, falls to the lot of the physician, who cannot be denied some share, too, in the treatment by vaccines or otherwise of infections and intoxications.

It has long been attempted to oppose the effects, or some of the effects, of thyroid secretion in the blood by giving digitalis, a drug which in this connection has little save custom and prejudice to commend it. The giving of belladonna is hardly rational, and such good as it may do perhaps results from its inhibition of secretion. But in *physostigma* we have a drug that in my experience controls tachycardia better than any other, and that appears generally to benefit the patient. *Arsenic,* too, is in some way or other of benefit likewise, and so is *potassium iodide.* It is true that the administration of iodine has been adversely canvassed, but Kocher gives the potassium salt, and we may have some respect for his experience. Sir John Barr lauds the use of *calcium* salts with that robustness that characterizes all his speech, and perhaps they are not without their uses and helpful in some degree.

Sodium phosphate is certainly of distinct, even if of inexplicable, usefulness, and both *salicylates* and *hexamethylenamine* often prove of service for obvious reasons.

The various sera, rodagen, and the like are generally unsatisfactory, though the *serum of Möbius* is said to sometimes give good results.

So far as glandular therapy is concerned, the administration of thyroid substance, on the plea of giving a tired organ a rest, is not to be commended, but mixed cases or cases in which myxedema is imminent may perhaps be in measure advantaged.

Parathyroid substance is far less useful than once was hoped would be the case, and *ovarian substance* is unreliable. Occasionally, as at the menopause, I have known it to help.

There are not wanting, too, symptomatic indications in certain cases for the use of *pituitary* and *adrenal substance*—perhaps the latter more frequently. But by far the most interesting clinical problem is that which attends the remarkable results of the administration of *thymus substance,* especially in slighter cases of the nervous type. That this substance sometimes brings about amelioration was first made known ten or twelve years ago, I think, by Mr. Owen, who found that a certain patient to whom by a happy accident thymus instead of thyroid had been given promptly recovered. Reports are constantly occurring in various Continental papers of its value. Personally, I have given it in almost every case that I have seen during the last three years and am convinced of its utility.

At the first blush it may seem inconsistent with what has been already said concerning the rôle of the thymus in exophthalmic goiter, that the dried gland should be advised as a remedy. But the thymus is a "queer" organ; it has different functions and perhaps different functional epochs; we do not know what may be its functional state in Graves's disease, and after all we give, not the thymus of an afflicted patient, but that of a castrated sheep. Anyhow, the plain fact remains that 20, 30, or more grains a day will sometimes abolish exophthalmos and relieve tachycardia and other symptoms.

To arrest hyperplasia we may choose various agencies. Personally, I have found the inunction of the *ointment of red iodide of mercury*—a method

I learned in India twenty years ago, and that Dr. George Murray constantly employs—of undeniable advantage. But it is sometimes painful if carelessly used.

In India the neck of the patient is exposed to the direct rays of the sun, and though this is hardly practicable in England, I have often wondered if any modification of the Finsen light could be of service. The good results sometimes obtained with the X-rays give us hope that the resources of physicotherapy are not yet exhausted. But if all such plans fail—should time as an ally have proved faithless, or should opportunity have been squandered—the cutting of the vicious circle by the surgeon's knife must not be delayed. Generally speaking, the removal of so much of the thyroid as may be judged redundant is the operation of choice. But Jonnesco still prefers to operate in certain cases upon the cervical sympathetic, and thymectomy, either with or without thyroidectomy, is now being advocated. On the other hand, there are those who see in a persistent thymus a contra-indication to thyroidectomy.

I shall not discuss these points, but content myself with insisting on the real difficulty in choosing the moment as well as the nature of the operation. The physician must not regard operation as a *dernier ressort,* nor should the surgeon deem it the only rational method of dealing with the disease.

If there be few cases that do not call, at some time or another, for surgical counsel of action, there are also few remitted to the surgeon that do not stand in need of medical treatment before and after operation.

If, as I said at the beginning, the pathology of the disease has long been a battleground for the scientific inquirer, the treatment of it should be, for the physician and the surgeon, a field of alliance: even if not worthy of the name of the "Field of the Cloth of Gold!"

PILARY DISSOCIATIONS AND INSTABILITY THE RESULT OF ENDOCRINE-GLAND DYSFUNCTION.*

By DR. LÉOPOLD-LÉVI,

PARIS, FRANCE.

By pilary dissociation is meant a lack of correspondence between the condition of the scalp hair and that of the hair covering the body. The term pilary instability is applied more precisely to cases in which, while one of these pilary systems is subnormally developed, the other is exaggerated.

A. Male Sex.—I. A first form of pilary disturbance is the result of *testicular insufficiency.* The pilary development is of an infantile type and may be termed the *female* type. The subjects, 17 to 20 years old, exhibit, on the one hand, complete absence or paucity of the hair on the trunk, pubis, and

* Summary of article in the Bulletins et Mémoires de la Société médicale des Hôpitaux de Paris, January 1, 1914.

face. The scalp hair, on the other hand, is excessive and overabundant. The parents may have noticed that, during childhood, the hair grew faster, was "thicker," and required cutting oftener than in other male children. This lack of correspondence between the two pilary systems sometimes persists after puberty. In 1 case under the author's observation, that of an infantile patient of 34 years, who was brought to him by the father because of asthma, the face was devoid of hair, while the head exhibited "a forest of hair." In another patient, 27 years of age and suffering from the adiposogenital syndrome, pituitary medication, to which testicular opotherapy was later added, brought forth a growth of hair on the chin and body.

Pilary dissociation, *i.e.,* scantiness of body hair with conservation of scalp hair, is well known to exist in eunuchs. Sabouraud, referring to the eunuchs of Abdul Hamid's harem, states that among 147 castrated subjects there was not a single instance of true baldness, though one subject had general alopecia. In the testicular insufficiency of senility the excellent condition of the scalp hair, coupled with rarefaction of the pubic hair, is at times striking. Sabouraud refers to cases in which after patients had been bald thirty or more years a thin hairy growth appeared at the vertex after the age of 60 years had been reached.

II. As a counterpart to the pilary condition typical of testicular insufficiency may be considered that characteristic of hyperorchidism, which the author designates as the *virile pilary type.* Here there is baldness, but a well-developed beard and mustache, and at times hirsuties of the body. Sabouraud recently pointed out that it is upon the completion of sexual development, at the age of 18 to 22 years, that baldness becomes manifest. At this period the facial and pubic hair also develops.

B. Female Sex.—I. In the female the two pilary systems show a similar differentiation, which may even result in a *masculine* type of pilary distribution. Sicard and Reilly have reported the case of a woman of 30, suffering from a pituitary symptom-group, in which, besides cessation of the menses, there occurred marked loss of hair, previously very abundant. Simultaneously pilary development took place on the face, arms, and legs, forming in spots actual hairy patches. The author himself had previously reported the case of a woman who at the menopause grew a beard, as well as hair on the abdomen and thorax. In this patient, moreover, the voice became masculine and the clitoris so hypertrophied as to resemble a small penis. Simultaneously, baldness of the ordinary masculine type set in. Analysis of this case seemed to warrant ascribing the condition to the adrenals. The blood-pressure was high (not far from 300 mm.); glycosuria was present; the blood-serum caused slight mydriasis when applied to the enucleated frog's eye, and in the vicinity of the uterus was a mass, which might have been of parasuprarenal origin.

Cases such as the above are not exceptional. In another case previously reported by the author a young Russian woman went through her first pregnancy and labor without difficulty, but in the following year presented dystocia with hemorrhage, anasarca, and fever. Later, her scalp hair fell out, but hair

appeared on the chest, arms, legs, abdomen, and back, and a long beard was grown. The hair on the legs was 4 to 5 cm. long. Von Eiselsberg has reported the case of a myxedematous woman in whom similar pilary changes took place.

In brief, a masculine type of pilary instability may be met with in woman under various conditions, viz., in myxedema, hypophyseal syndrome, adrenal disturbance, and pregnancy. Sometimes at the menopause loss of cephalic hair coincides with a growth of hair on the upper lip.

II. Another form of pilary abnormality may be designated as the *early* (précoce) *feminine type,* and is exemplified in a case of Kendle, viz., a cretin 9 years old who showed abnormally early puberty, the breast being well developed and coarse hair growing on the pubes and in the axillæ. Menstruation became established at the age of 5 years and 2 months, and the menses recurred at intervals of two to four months, lasting three to five days each time and corresponding with the adult menstrual flow in amount. Under thyroid treatment, besides a marked gain in height, some loss in weight, and mental betterment, teeth were cut, the coarse hair was replaced by fine hair, and the menstruation ceased. The breasts diminished in size, the axillary and pubic hair disappeared, the voice assumed a higher pitch, and the entire system seemed to revert to a more child-like type.

Discussion.—From previous clinical, therapeutic, and experimental studies the author had reached the following conclusions: (1) The thyroid exerts a specific action on the scalp hair, lids, and eyebrows; (2) the ovary and testis act similarly on the pubic and axillary hair; (3) the testis, in addition, holds under direct subordination the hair of the body, the beard, and the mustache; (4) the pituitary and adrenals exert an indirect (through the testis) influence on the body hair, exclusive of the scalp hair, lids, and eyebrows.

In Type AI of the pilary abnormalities above discussed the testicular insufficiency is responsible for the lack of hair on the lip, chin, and pubes. In infantilism of thyroid or pituitary origin testicular insufficiency is, nevertheless, again responsible. The excellent condition of the scalp hair in these cases shows that the thyroid does not necessarily participate in the complex of testicular insufficiency. In the hypertrichosis of infantile cases, however, there appears to be exaggerated trichogenous function on the part of the thyroid, which, by reason of the testicular insufficiency, undergoes a compensatory excitation. It is well known that in infantilism excessive functioning of the thyroid (and pituitary) reacts on the osseous system, giving rise to infantile gigantism. An analogous condition apparently can be produced as regards the hair, testicular insufficiency causing what might be termed a "capillary gigantism." Thus, by this, the feminine type of pilary instability, there is brought to one's attention an inhibitory action of the testis on the scalp hair.

In Type AII, the virile form, the exaggerated growth of hair on the body and chin is due to hyperorchidism. As for the loss of cephalic hair, the author had already shown that thyroid disturbance may cause loss of hair

in two ways, viz., either through hypothyroidism, as in the paucity of hair of old age and myxedema, or through hyperthyroidism, alopecia being by no means rare in exophthalmic goiter. In the individuals with hyperorchidism all the evidence available goes to show that the loss of cephalic hair is due to hyperthyroidism. Thus, these subjects often show well-developed eyebrows. Again, conditions under which baldness occurs—baldness being frequent among subjects with highly and precociously developed brains, and tending to some extent to occur in intellectual women—can be accounted for through hyperthyroidism. On the whole, hyperorchidism appears to cause hyperthyroidism, which, in turn, by inducing overexcitation of the pilary structures, finally results in their exhaustion. Why should thyroid excitation be capable of producing under one condition a superabundance of hair and under another loss of hair? Factors other than the hyperthyroidism must be taken into account. The quality of the pilary system may be a factor in the final result; but there must be borne in mind the manner of excitation of the thyroid, which, while continuous in testicular insufficiency, may take place intermittently, by "hitches," in hyperorchidism. Or, the intensity of the excitation may account for the differences in result. A given excitant to the scalp, indeed, by producing an intense or a slight congestion of the hair papilla, may in the one case cause the hair to fall out, in the other to grow.

In Type BI the problem as to the appearance of a beard and hair on the body in the female sex can be solved in several ways, even if one restricts the viewpoint to dysendocrinic masculism. The latter is always dependent upon ovarian disturbance. Just as testicular insufficiency, as already stated, may be either primary or secondary to thyroid or pituitary disorder, so ovarian disorder may be either primarily ovarian or secondary to pituitary or other disturbance. It may be, as suggested by Klotz, that the ovary is originally a duplex, hermaphrodite organ, partly feminogenous and partly virilogenous; where there was produced an intubation or destruction of the former property, the virilogenous activity might be resumed, this, in turn, being the equivalent of hyperorchidism in the male and leading to a similar, or masculine, type of hair loss.

In Type BII, or the early feminine variety, the condition is an instance of excessive reaction on the part of the ovary to insufficiency of another ductless gland, the thyroid. The appearance of pubic hair in the child 5 years old was merely a manifestation of hyperovarism. The subsequent disappearance of this hair, as well as the other signs of puberty, upon administration of thyroid gland bore witness to the thyroid insufficiency and ovarian excess as etiologic factors.

ACUTE THYROIDITIS AS A COMPLICATION OF ACUTE TONSILLITIS.*

By CLEMENT F. THEISEN, M.D.,

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Of 7 cases of acute thyroiditis that have come under the writer's observation, in all except 1 case the inflammation of the thyroid gland occurred with or directly after attacks of tonsillitis. Two of these patients each had two distinct attacks of acute thyroiditis, each time with an acute tonsillitis, and both later developed well-marked diffuse goiters. In all of the cases reported, the inflammation of the thyroid occurred in a previously healthy gland of normal size. For this reason, and because in no case suppuration occurred, the cases belong in the class described by Mygind and other authors under the name "thyroiditis acuta simplex," particularly to distinguish them from cases of acute strumitis, in which the disease involves the already hypertrophied thyroid gland. Suppuration occurs much more frequently in the latter class of cases, and they are not as uncommon, occurring sometimes with pneumonia, measles, typhoid fever, influenza, diphtheria, etc.

The writer's thyroiditis patients were all girls or young women, and the literature shows that this is true in the majority of the cases. The only case that did not occur with tonsillitis developed during a pneumonia. Two cases had attacks of hyperthyroidism, with all the typical symptoms, developing soon after the attacks of acute tonsillitis and thyroiditis.

Simple acute thyroiditis must not be confused with acute hyperemia of the thyroid gland, such as is seen in anomalies of menstruation and acute infectious diseases. It is not uncommon in measles epidemics, particularly in Switzerland, where goiter is endemic.

The first of the author's cases is described as follows:—

Case I.—Miss L. B., aged 20 years, came into the Nose and Throat Clinic with a history of sore throat for several days. On examination a typical acute follicular tonsillitis was found. The thyroid gland was greatly and uniformly swollen, with some redness of the skin, and was very tender to the touch. This had developed during the third day of the tonsillitis, and the patient stated that the gland was not enlarged before her attack of tonsillitis. The swelling increased during the next two days, and there was some dyspnea, undoubtedly caused by tracheal compression. Deglutition was very painful, but there was not as much dysphagia as in some of the other cases, perhaps because the left lobe of the gland was not more involved than the other parts. Temperature was 103° F. for several days.

The usual treatment for the tonsillitis was given, and an ice coil was kept around the neck constantly until the swelling of the thyroid gland subsided—in about a week. The temperature gradually dropped, being normal within a week and remaining so.

The patient would not consent to a tonsillectomy, and the following winter came to the clinic with a similar attack of thyroiditis, running the same course and again developing with an acute tonsillitis. She came to the clinic the succeeding two years, and while there were no further attacks of acute thyroiditis, she de-

* Summary of article in the New York State Journal of Medicine, Dec., 1913.

veloped a diffuse goiter. It is at least possible that etiologically there was a connection between her attacks of thyroiditis and the subsequent hypertrophy of the gland. There is no doubt that the infection of the gland was each time caused by the acute tonsillitis.

The only internal medication that the writer's patients received was calomel in the beginning of the attack and hexamethylenamine in large doses freely diluted. None of the cases went on to abscess formation in the gland. The constant use of the ice coil was of the greatest service and always reduced the acute congestion of the gland very promptly.

PITUITARY EXTRACT IN OBSTETRICAL PRACTICE.*

By B. P. WATSON, M.D., Ch.B., F.R.C.S.E.,
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Pituitary extract was used by the author in 2 cases of incomplete abortion, with retention of the placenta, between the third and the fourth month. In neither of them did spontaneous expulsion occur, though each case had 2 injections within two hours. In the early months of pregnancy, while uterine contractions may be induced, these are usually insufficient to expel the ovum, and its expulsion is further impeded by spasmodic contraction of the internal os. It should, therefore, only be given in cases where the os is widely dilated. In septic cases, with retention of the ovum or part of the ovum, it should not be employed, as the stricture of the os may render manual separation more difficult than it would otherwise be.

In the induction of premature labor the results are somewhat better, although by no means uniformly satisfactory. Stern was among the first to employ the drug for induction, and he succeeded in 2 cases out of 3. In both the indication was tuberculosis of the lungs and larynx, and in each spontaneous delivery occurred. The author has used it successfully in a similar case. These successful cases are the exception, however, and a great number of unsuccessful results are recorded. At full term and in postmature cases the results are more certain. Fries was successful in 2 normal cases at full term. Herzberg also succeeded with 2 patients, 1 of them an epileptic. Krakauer brought on labor in an eclamptic at full term. The author was successful in inducing labor in 3 cases in which pituitrin was used, 1 at the eighth month, 1 at full term, and 1 three weeks postterm. Such success is not in accordance with the experience of most other obstetricians, but the author is sure that a further trial is justified. The important point is to administer a second dose before the effects of the first have passed off. If the contractions are sufficiently strong to dilate the cervix, the rest of the labor usually goes on naturally. If, therefore, as a result of one dose only a

* Summary of article in the Canadian Medical Association Journal, September, 1913.

small amount of dilatation occurs, and no second dose is given, the cervix may again close and labor pains cease. In postmature cases the drug can do no harm, and is certainly worth trying before adopting other means.

For the induction of labor in cases of eclampsia its use may be attended with some danger, as blood-pressure, already high, may be raised to a dangerous degree. Fries, however, used it successfully in 2 cases of nephritis, and Krakauer and others used it in cases of eclampsia, both in the first stage of labor. In one case the pulse was slowed from 160 to 76; several fits occurred after delivery, but another dose of pituitrin was given, and the fits ceased. Bad results are recorded by Nagy, Schneider-Sievers, and Töpfer.

A number of very successful results in the treatment of placenta prævia have been recorded. In the absence of pains or when the pains are feeble a single injection very often stimulates strong contractions, so that the presenting part is pressed down against the lower uterine segment and hemorrhage is arrested. Hofbauer recommends that in lateral and marginal placenta prævia, with the head presenting, the membranes be ruptured and pituitrin injected. If the placenta stretches halfway across the os, he inserts a hydrostatic dilator. Trapl adopts the same line of treatment, and in a series of 16 cases had no maternal mortality, and a fetal mortality of only 3, while in 2 of these the child was dead before the pituitrin was given. Pituitrin treatment may also be combined with version in such cases. In the author's case the pituitrin induced labor pains and enabled version to be performed much sooner than would otherwise have been the case. Tearing of the cervix may have resulted from powerful uterine contractions, but it is known that such tears are apt to occur through the softened vascular cervix in cases of placenta prævia.

When given about two minutes before Cesarean section pituitrin has a marked effect in diminishing the loss of blood. A number of operators have used it for this purpose. In the Tarnier clinic it was found to be inefficient in 2 cases out of 4, and in these ergotin gave good results. Fischer injected it directly into the uterine wall, and the uterus at once contracted and all hemorrhage ceased.

Pituitrin may also be used in osteomalacia. The influence of pituitrin upon the growth of bone is well known. It is stated, however, that, while it may relieve the pain, it does not effect a cure.

As a galactogogue, the author used it in several cases. It was difficult to estimate the exact effect produced, but in all cases the children, who previously appeared to be hungry after feeding, were satisfied and quickly gained in weight.

In some women, more especially elderly primiparæ, pituitrin appears to have no effect at all. In others it may produce general symptoms, cardiac distress, vertigo, tachycardia, and respiratory difficulty, which have been reported by various writers. The same set of symptoms was observed by Hofbauer after intravenous injection, and it may be that some of those results following subcutaneous or intramuscular injection were due to the needle entering a vein.

In its action on the uterus pituitrin may set up tonic or tetanic contractions, and may cause a spasm of the internal os. The first contraction after the injection is given is usually a prolonged one. Hamm, for instance, reports a case in which 4 injections were given. After the second the first pain lasted eight minutes, after the third eleven minutes, and after the fourth seventeen minutes. After this first powerful contraction the uterine action is usually normal. When the contractions are very powerful and painful they may be controlled by the administration of an anesthetic, or by the use of morphine or omnopon. The ordinary scopolamine-morphine method may be successfully used along with pituitrin.

Spasm of the os may occur in cases of abortion, when the drug is given for the induction of premature labor or early in the first stage. Heil reports a case where the birth of the second of twins was arrested, owing to spasm of the os following pituitrin injection. Nagy had to incise the cervix in one case, owing to spasmodic rigidity, while Roemer had to remove the placenta manually in 2 cases, owing to stricture of the os. In a case of sacculated retroflexed uterus, with forward displacement of the cervix, Koch inserted a hydrostatic dilator and gave 1 c.c. of pituitrin. Strong contractions occurred, but no dilatation of the cervix took place. Apparently there was spasm of the os. Cesarean section was ultimately performed, but the child died.

A number of cases have been reported in which pituitrin was given, and in which atony of the uterus occurred after the termination of the third stage. In most of these the last injection had been given a considerable time before the birth of the child. When the last injection has been given within a short time of the birth of the child and placenta, the uterus usually remains firmly contracted. If there is any tendency to relaxation the ergot preparations usually act well.

Any bad effects of pituitrin on the child are due to the prolonged contraction of the uterus. In nearly all cases marked slowing of the fetal heart is observed, but usually the child is in no danger. Nagy had to deliver rapidly with forceps in one case in order to save the child. Koch and Spaeth report death of the child in breech presentations after pituitary injections. In both cases delivery was rapid and easy.

Unusual effects have been mentioned in a few cases. There was spasm of the glottis in one case reported by Hamm, and contracture of the extremities, lasting for twenty-four hours, in a case reported by St. Antechi and Zaczewski. It is difficult to say whether these were due to the pituitary or not.

On the whole, the chief field of usefulness of pituitrin is in the first and second stages of labor, when there is delay due to feebleness of the pains, alone or when combined with other complications, such as malpositions of the head, malpresentations, multiple pregnancy, slight narrowing of the pelvis, etc. It gives good results in many cases of post-partum hemorrhage, but is not superior to the various preparations of ergot. It has the power, however, of sensitizing the uterus so as to allow these preparations to act more powerfully, the combination being most effective.

INTERNAL SECRETIONS AND DENTAL CARIES, WITH SPECIAL REFERENCE TO THYROID INSUFFICIENCY.*

By H. P. PICKERILL, M.D., M.D.S.,

OTAGO, NEW ZEALAND.

The glands the secretions of which may possibly influence the resistance of the tissues to caries are the thyroid, the pituitary, and the thymus.

Thyroid Insufficiency.—Of recent years attention has been drawn by Dr. Leonard Williams and others to the fact that calcium utilization in the body is intimately associated with the metabolism of the thyroid gland. From clinical evidence the writer is inclined to think that there is an association between that condition seen in children which is now diagnosed as thyroid insufficiency and the presence of dental caries. In order to obtain some precise data as to the possible effect on the teeth produced by loss of the internal secretion of the thyroid, thyroidectomy was performed by the author on a number of young rabbits. The single animal which survived was kept for over a year and then killed; it thrived well and was apparently perfectly healthy; *post mortem* there was no trace of thyroid gland present.

In order to ascertain to what extent any deficiency of osseous development might be due to deficient digestion or absorption in the intestines, the amounts of undigested starch and of calcium in the feces of this rabbit were estimated on several occasions and compared with those of normal control animals. The amount of starch undigested in the feces was found decidedly low (18 per cent.); the writer had not previously observed it in normal rabbits to be below 20 per cent. under any circumstances. This increased utilization of starch probably accounted for the animal's general fat condition. The loss of calcium was considerably in excess of the normal (1.168 instead of 0.634 per cent.), and it might be supposed that this would have a prejudicial effect upon the calcium content of the bones and teeth.

The teeth were to the naked eye well formed and normal, the only difference being that they were extremely white and quite devoid of that yellowish staining and fine black deposit which is almost universally present on rodents' and other animals' teeth, and also in many cases on human teeth immune to caries. This particular form of black stain or deposit is not due to accidental staining by tobacco or foods, but is "biochemical" in origin, being produced either by chromogenic bacteria or from hemoglobin. The specific gravity of the teeth was estimated by the pycnometer method and compared with that of similar teeth in controls. The control teeth showed a specific gravity of 2.49, while those of the thyroidectomized animal gave a slightly lower figure, 2.46. This difference is not apparently great, but the writer had previously shown that the enamel of human teeth, demonstrably different in several physical properties, differs only to a similar degree in density. On analysis the teeth of the thyroidectomized animal showed

* Summary of article in the Interstate Medical Journal, May, 1914.

slightly less ash than the controls—79.16 per cent. instead of 80 per cent.—*i.e.*, the teeth after thyroidectomy contained 0.84 per cent. more organic matter than normal. The calcium in the teeth was estimated and showed that the ash of the thyroidectomized animal's teeth contained 2.1 per cent. less calcium than that from the control's teeth.

The saliva was, on 7 different occasions, obtained from the thyroidectomized and control rabbits by aspiration from the mouth for five minutes after the subcutaneous injection of pilocarpine (1 mg. per kilo.). Apparently the thyroidectomy somewhat reduced the output of alkaline salts from the salivary glands, and this was not made up for by any increase in quality of saliva. The saliva of the thyroidectomized rabbit was found to contain slightly less calcium than the control—0.206 instead of 0.22 per cent. That the salivary glands do tend to show a correlated variation with the thyroid gland was supported by the fact that *post mortem* the submaxillary salivary glands were found to be much below the normal in proportion to the weight of the animal; thus the average weight of submaxillary salivary glands in normal full-grown rabbits was found by the author to be 0.3473 Gm. per kilo. of body weight, whereas in the thyroidectomized rabbit it was only 0.2268 per kilo.

It is to be observed that the variations in the thyroidectomized animal, although slight, are all in one direction—viz., in that which would *lower the resistance of the teeth to disease.* This coincides with clinical observations. The result, therefore, goes to support the theory that thyroid insufficiency may favor the occurrence of caries of the teeth.

The Pituitary Gland.—As is well known, the secretion of this gland has an influence upon the morphology of the jaws, excess of secretion leading to increased growth and deposit of bone (which implies increased local fixation of lime salts), while probably a decrease leads to the condition called *progeria,* in which the jaws remain infantile in character and growth, and local utilization of lime salts is defective. Keith has suggested that the internal secretion of the pituitary acts as a "sensitizer" between the nerve-fibrils and the functioning cells, enabling the neurotrophic influence to exert more readily a stimulating effect upon osteoblasts. But why should it be limited to osteoblasts? It is quite possible that ameloblasts may be similarly affected. It is worth inquiry whether pituitary deficiency may not be a contributing cause to the imperfectly "finished" enamel prisms which Keith has shown to be commonly present on the surface of teeth susceptible to caries. This imperfect finish consists in minute depressions at the ends of the prisms, which increase the adherence of foreign matter and expose a larger and more vulnerable surface to the action of fermentation acids.

The Thymus Gland.—This gland, normally only a temporary organ, disappearing after infancy, has also been suggested as playing a part in the etiology of caries. Basch has found that in puppies osseous development is retarded by thymus excision. If the thymus does play a part in relation to the teeth, this could only be in connection with the deciduous teeth.

Abstracts from Current Literature on the Internal Secretions

Combined Action of Cocaine and Epinephrin on the Pupil.—To account for the fact that epinephrin mydriasis takes place in experimental animals only after ablation of the superior cervical ganglion, Meltzer and Auer have advanced the following explanation: Since instillation of epinephrin does not cause the pupillary dilatation in the normal animal or that in which the sympathetic has been cut below the superior cervical ganglion, epinephrin must act on the dilator muscle of the iris, causing it to contract. This contraction, however, cannot be manifest, because of the power which the ganglion possesses of inhibiting pupillary dilatation.

The author conducted experimental researches in rabbits. In these animals the sympathetic was cut between the superior and middle cervical ganglia. At least four weeks later, cocaine solution was instilled and after it epinephrin solution. Control instillations were made on the side on which the sympathetic had not been cut. In all instances epinephrin instilled on the operated side after cocaine failed to cause more than 1 mm. of pupillary dilatation, whereas after cocaine instillation 1 drop of epinephrin solution caused a maximal mydriasis equal to that obtained with epinephrin alone in animals in which the superior cervical ganglion had been removed. The results are the same whether epinephrin be injected before cocaine; whether the two agents be mixed and injected together; whether cocaine be injected intravenously and epinephrin instilled into the eye; whether cocaine be injected under the conjunctiva and epinephrin instilled, or whether epinephrin be injected intravenously and cocaine instilled.

In the normal animal cocaine, besides exerting its own mydriatic effect, sensitizes the dilator muscle of the iris to the subsequent action of epinephrin, since the latter then greatly increases the dilatation. The author concludes that cocaine, in addition to stimulating the dilator mechanism of the pupil, paralyzes the mechanism of inhibition of pupillary dilatation, probably by an action on the terminals of the inhibitory fibers believed to extend upward from the superior cervical ganglion.

In the human subject the author's tests led to the following conclusions: (1) In subjects with equal and normally reacting pupils, after cocaine has been instilled on both sides, epinephrin instilled in addition on one side causes an increased dilatation and, therefore, anisocoria. In all instances instillation of epinephrin alone did not cause mydriasis. (2) In subjects with equal pupils or with anisocoria, but reacting to light and accommodation, cocaine instilled on both sides produces an anisocoria or increases it if previously present. Epinephrin then instilled into the eye with the smaller pupil causes reversal of the anisocoria.

(3) In subjects with one normal pupil reacting to light and accommodation, but with a unilateral oculosympathetic symptom-complex and myosis due to sympathetic paralysis, cocaine does not act on the pupil with the myosis of sympathetic origin, but epinephrin instilled afterward caused mydriasis in this eye. Instillation of epinephrin alone always failed to cause mydriasis in either eye. (4) In subjects with rigid pupils and in those with permanent myosis cocaine-epinephrin mydriasis is almost or entirely wanting. Mattirolo (Rivista critica de clinica medica, No. 6, 1913; Revue de thérapeutique médico-chirurgicale, April 15, 1914).

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Chronic Rheumatism Due to Thyroid Insufficiency.—Some clinicians, the author avers, are still disposed to deny the existence of a chronic, progressive, and deforming rheumatism due to thyroid disease. The reason is that these observers have not paid enough attention to the clinical features of the cases, taking into consideration merely the action of thyroid preparations administered. It is not sufficient to cure cases of migraine, asthma, psoriasis, or rheumatism by opotherapy in order to conclude that these disorders have been due to glandular deficiency. The effect of the treatment constitutes at most a presumptive indication in favor of the special pathogenesis of the disease. A case such as the following, on the other hand, is convincing: A young woman had an attack of acute articular rheumatism at 18. Three years later, there was pain in the neck, fever, and a tender swelling of both lobes of the thyroid. The treatment consisted of a milk diet, quinine sulphate, pyramidon, and two days later a purge of sodium sulphate and magnesium sulphate. Improvement was noted and the quinine discontinued. Four days later there was no fever; eggs and vegetables were allowed. The patient gained in weight, but about six weeks later complained of dyspnea and pain in the left elbow. The thyroid was found atrophied. Six drops of tincture of iodine were given twice daily for three weeks in each month. Three months later, there was constant pain in the knee, elbow, shoulders, ankle, and calf muscles refractory to aspirin and salophen. The patient complained of fatigue and was irritable. Iodalose, 6 drops at lunch and dinner, was ordered. The pain was relieved. Six months later the pain reappeared. Migraine and vomiting; diminished mental capacity; apathy and indolence. Thyroidin, 0.1 Gm. (1½ grains) daily, was begun, but the vomiting and diarrhea necessitated discontinuance of this measure. About two months later, the treatment was resumed, but with smaller doses, 0.05 Gm. (¾ grain) a day. In a few days the dosage was increased to 0.1 Gm. Diarrhea again brought the treatment to a stop; but the symptoms of thyroid insufficiency becoming more marked, two additional series of treatments (0.1 Gm. daily) were ordered. Five months later, regular organotherapy (0.05 Gm. daily) was instituted, which was well borne and improved the patient's condition. The headaches and somnolence ceased, and the mental processes were reawakened. The young woman continued the thyroidin for eighteen months and has been

in excellent health since (over two years having elapsed). The history of this case is almost as illuminating as a laboratory experiment. The obesity, asthma, migraine, and rheumatism were evidently due to thyroid insufficiency, since they followed an inflammation of this organ and yielded to organotherapy. P. Ménard (International Medical Congress, London, August, 1913; Revue de thérapeutique médico-chirurgicale, November 1, 1913).

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Goiter and Hyperthyroidism Occurring in Association with Dilatation and Aneurism of the Aorta.—Examination of Röntgen plates of cases of aortic dilatation and aneurism of various types reveals in the majority of cases enlargement of the thyroid gland. The author's observations were made for the most part in men 40 to 50 years of age with histories of syphilis. The thyroid enlargement extends in most instances back behind the sternum, and is but slight or at most of moderate degree, but the whole gland is equally involved. There is therefore no compression or stenosis of the air passages, stridor, or asphyxial attacks. On the other hand, evidences of hyperthyroidism, in particular tachycardia, are not infrequently present. The thyroid enlargement is in some of the cases demonstrable by inspection and palpation alone. It must be ascribed mainly to venous hyperemia, this in turn being due to pressure of the broadened aorta, especially its ascending portion and arch, upon the vena cava and perhaps also upon both innominate veins. The condition is thus primarily a vascular or static goiter, but it may gradually result in hyperplasia of the glandular tissue. Venous stasis of the face is not present, this apparent discrepancy being probably accounted for by the fact that the thyroid gland is the most vascular organ in the district of the superior vena cava and is therefore affected more readily than other parts by interference with the outflow of blood. In the treatment of this condition the primary affection,—syphilis and aortic disease,—of course, requires chief attention. Kienböck (Fortschritte auf dem Gebiete der Röntgenstrahlen, vol. xxi, No. 4; Zentralblatt für Chirurgie, April 24, 1914).

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Ovarian Therapy in Tuberculosis.—Ovarian extract, as shown first by Wittgenstein some years ago, lowers the virulence of the tubercle bacillus. It also exerts an action antagonistic to toxins. Its use in tuberculosis is therefore justifiable. It is best given in the form of the powdered dry entire gland, which causes no gastric disturbance or untoward effect on the lungs. Ovarian medication promptly overcomes hemoptysis, especially when, coming on at puberty or the menopause, the hemoptysis is related to disturbed ovarian functioning. The relationship of ovarian disorder to hemoptysis can frequently be noted clinically and its actual existence is confirmed by the favorable effect of organotherapy. If the treatment be applied long enough menstruation is observed to become regular or the menopause to set in in a normal manner. Pulmonary hemorrhages cease, the febrile temperature is lowered, the

general condition improves, and frequently even the tuberculous process comes to a standstill and local fibrosis tends to occur. The efficacy of ovarian treatment is increased by the addition of other organic products, such as adrenal or splenic extracts, or preparations derived from the blood. Combined ovarian and hepatic administration may also be employed in view of the hemostatic action of the liver, pointed out by Gilbert. Combined ovarian and pituitary treatment was tried by the author in but one case, with indifferent results. Thyroid treatment is contraindicated. In a tuberculous epileptic subject with monthly seizures alternate ovarian and parathyroid treatment considerably lessened the number of attacks. Duchamp (Journal de médecine de Paris, February 28, 1914; Revue de thérapeutique médico-chirurgicale, May 1, 1914).

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Uses of Pituitary Extracts and of a Combination of Epinephrin and Pituitary Extract in Ophthalmology.—By combining the adrenal active principle with pituitary extract the author obtained a preparation which proved to be of real value as a vasoconstrictor and hemostatic in ophthalmic surgery and even as a therapeutic agent in affections of the conjunctiva. The solution used was a clear fluid, of slightly acid reaction, each cubic centimeter of which contained the active principle of 0.2 Gm. of fresh pituitary (posterior lobe) from the ox. Twenty grams of this fluid were mixed with 1 Gm. of 1:1000 adrenalin solution. Repeated instillation of this solution has no effect on the corneal epithelium, which preserves its normal transparency and brilliancy. The solution was used by the author in 8 patients suffering from various eye affections. It was observed that the ischemia of the conjunctiva obtained with the solution was less prompt in appearing than that induced by epinephrin alone, but that it lasted longer and extended more deeply into the dermis of the conjunctiva. The pupil was slowly dilated by the solution, but accommodation was unaffected. The intraocular tension was unchanged. The author concludes that this solution is very useful in certain eye operations, *e.g.,* sclerotomy, iridectomy, tenotomy, intervention for pterygium, chalazion, etc. Its mydriatic action facilitates examination of the fundus. When used in conjunction with pilocarpine, eserine, or atropine, it reinforces their action. R. Arganaraz (Semana medica, Buenos Aires, September 4, 1913; Revue de thérapeutique médico-chirurgicale, December 15, 1913).

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Limitations of Treatment by Pituitary Extracts.—Most of the untoward phenomena reported from pituitary medication can be referred to nervous or blood-pressure effects. With the dose permissible in the human subject, no case of injury to the kidneys has as yet been reported.

In a transverse presentation the drug is positively contraindicated, but it may safely be administered in a breech presentation.

It is well to consider any ecbolic action contraindicated in cases which present signs of dilatation of the lower segment of the uterus.

Since the reaction of the uterus to the stimulant cannot be predetermined, it is well to begin with a small dose.

Pronounced intrauterine asphyxiation of the child may occasionally occur, and is always an indication for prompt termination of labor—usually the application of the forceps. This can hardly be considered a disadvantage, as the drug obviates one-third if not one-half of all former forceps deliveries.

Pituitrin is useful in bringing on labor or in producing abortion, but in cases of suspected infection, or in abortions accompanied by fever, it is advisable to avoid a violent increase of labor pains before all the contents of the uterus have been expelled.

As with all drugs producing hypertension, great care should be exercised in the use of the remedy in non-compensated or only slightly compensated heart defects, in arteriosclerosis, and in nervous patients.

The preparations used still labor under the disadvantage that knowledge of their contents of physiologically active substance is not exact. Many of the apparent failures may be attributed to this source. Hofstätter (Monatsschrift für Geburtshülfe und Gynäkologie, vol. xxxviii, p. 142, 1913; Therapeutic Gazette, March, 1914).

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The Parathyroid Glands in Disease of the Thyroid.—The author's article, occupying 128 pages, is based on the operative or necropsy findings in 25 cases of goiter and on examination of specimens after operation in 18 cases. The exophthalmic goiter material included 3 operative cases, 2 necropsies, and 30 specimens examined after removal. The results of the research all testify to the superiority of Kocher's enucleation-resection technique as permitting the removal of the thyroid as needed without injuring the parathyroids, and because it obviates the necessity for ligating the main trunk of the inferior thyroid artery. The author's findings also confirm the importance of the parathyroid glands, as independent organs, with a vital and indispensable function. He found in 96 normal cases that there were only 2 parathyroids in 2 per cent., 3 in 9 per cent., 4 in 81 per cent., and 5 in 7 per cent. They averaged 2 by 4 by 6 mm. and were located at the rear margin of the lower pole of the thyroid, close to the branches of the artery and the recurrent nerve. With goiter, he found 2 parathyroids in 4 per cent., 3 in 36 per cent., 4 in 56 per cent., and 5 in 4 per cent. In 4 out of 5 exophthalmic goiter cases there were 4 parathyroids and in the other only 2. He found that the parathyroids had been removed with the goiter in about half of the cases operated with techniques other than Kocher's. T. Iversen (Archives internationales de chirurgie, vol. vi, No. 3; Journal of the American Medical Association, March 28, 1914).

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Neuroblastomata Arising from the Sympathetic System.—Neuroblastomata occur much more frequently than is generally recognized, even though they are composed of the most highly differentiated cells in

the body, the nerve-cells. During the year 1913, 7 cases were reported. These tumors may occur in any part of the nervous system, but in the majority of the cases occur in connection with the sympathetic.

In the author's case there were 2 tumor masses, the one situated in the region of the celiac plexus and the other occupying the position of the left adrenal gland. Metastases were present in the liver and both kidneys. The case had been diagnosed as tuberculous peritonitis, and the findings mentioned were made at autopsy.

A neuroblastoma is any tumor composed of newly formed true nerve elements, which may be either differentiated or undifferentiated in character. In the sympathetic system the undifferentiated neuroblastomata are of two types, the ganglioneuroma and the chromaffin tumor, while the undifferentiated tumor is the so-called malignant neuroblastoma. The two types of differentiated neuroblastomata are almost invariably benign, while the undifferentiated form is very malignant. Although the three types differ widely in many respects, they are derived from a common mother-cell. H. R. Wahl (Experimental Medicine Section, Academy of Medicine of Cleveland; Cleveland Medical Journal, December, 1913).

* * *

Tumors of the Kidney, Suprarenal, and Testicle.—Reports of a study of the operative and autopsy material from the Mayo Clinic, consisting of 92 renal tumors, 3 adrenal tumors, and 21 testicular tumors. The most numerous tumors of the renal cortex, the so-called hypernephromas or Grawitzian tumors, are apparently mesotheliomas derived from the nephrogenic vesicles which have failed in the early embryo to form a tubular connection with the renal pelvis. The renal cortex is also frequently the site of inclusions from the mesonephros, and rarely of inclusions from the suprarenal gland; but rarely, if ever, do either of these inclusions in the renal cortex form malignant tumors.

Of the 3 primary adrenal tumors, 1 was an adenoma and 2 were hypernephromas from the adrenal cortex. Primary malignant tumors of the adrenal are either round-celled sarcomas or more frequently hypernephromas. Adrenal hypernephromas frequently induce abnormalities of sex and strength. Tumors of the adrenal, in whatever stage of their development, bear no histologic resemblance to most mesotheliomas (so-called renal hypernephromas).

Of the 21 testicular tumors, 19 were teratomas. These, in harmony with Ewing's hypothesis, arise from sex cells the normal development of which has been suppressed. L. B. Wilson (Annals of Surgery, April, 1913).

* * *

Treatment of Exophthalmic Goiter with the X-rays.—Analysis of 12 cases of exophthalmic goiter thus treated. Four were cured; the exophthalmos and goiter had gone, and no symptoms remained. Five —1 of which had been operated upon—were greatly improved. Three were improved, 1 having also been operated upon, and 2 still remaining

under treatment. The exophthalmos disappeared in 4 cases, was slight in 3, and marked in 5, 2 being still under treatment. The skin was normal in 7 cases; there was slight telangiectasis in 4, and marked telangiectasis in 1. These latter were the author's earliest cases, and the number of exposures given was much greater than had been since found to suffice. All the patients expressed themselves as much better, and stated that their weight had increased. In none was there any sign of myxedema—a point of interest, since in a case the author had recorded some years previously, in which he thought myxedema had developed, the patient got very fat at the end of the treatment, which had lasted two years, and the hair over her forehead began to fall. Recently, however, her appearance had been normal. All the author's cases were treated with the X-ray tube at a distance of 18 to 12 inches from the skin, the surrounding part being screened off by a 4-inch thickness of felt. The patients had attended either two or three times a week for periods up to two years. Bruce (Proceedings of the Royal Society of Medicine; Charlotte Medical Journal, March, 1914).

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Epinephrin and the Blood-pressure.—Experiments carried out to ascertain the effect of hypodermic injections of epinephrin on the blood-pressure. Ten minims of epinephrin solution (1 : 1000) was the quantity used on each occasion. The effect in all the experiments was to decrease the diastolic pressure more than the systolic was raised; the persistence of the diastolic fall was also generally greater than the persistence of the systolic elevation. Palpitation, tremulousness, and faintness were generally experienced after the injection. Epinephrin having been proved to cause contraction of the peripheral vessels, the great depression of the diastolic pressure it produces cannot be due to diminished peripheral resistance. It would seem that it must be accounted for by increased freedom of outflow at the aortic orifice for the blood in the arteries. The author points out that the condition of systolic and diastolic pressure observed in his experiments resembles that commonly found in aortic regurgitation, and this suggested to him that one of the physiologic actions of epinephrin in man might be to dilate the aortic orifice and produce a temporary regurgitation. This may explain the sudden collapse or death which has occasionally followed the injection of the drug into patients anesthetized with chloroform. Watson (Practitioner; Charlotte Medical Journal, March, 1914).

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Effects of Removal of the Hypophysis.—Report of experiments on 22 dogs. There are undoubtedly three well-marked changes which follow hypophysectomy. The first change concerns the pancreas. The second is the atrophy of the testicles, which is of very early appearance, being extremely marked by the end of the second week after operation. Whether or not this atrophy can be compensated for by the function of some part left behind or of some glandular rests which have been described

by Cushing in the floor of the sella turcica, one is unable to say. Increase in weight is of late appearance, and whether it be due to the loss of the hypophysis primarily or due to the secondary atrophy of the testicles is not at all clear.

These results agree with the recent work of Aschner, except in two particulars. Aschner worked almost exclusively with young animals, and inclines to the belief that the removal of the hypophysis from the adult dog is without effect. In the second place he ascribes the atrophy of the testicles to injury of the tuber cinereum. This point of view seems purely academic. There can be no agreement as to where the tuber cinereum ends and the infundibulum begins. The authors found no evidence in their work which would incline them to agree with Aschner in this particular. Sweet and Allen (Annals of Surgery, April, 1913).

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Thymus Extract in Graves's Disease.—Children bear thyroid preparations much better than adults and rarely acquire Graves's disease, perhaps because their active thymus is able to neutralize the excessive or morbid activity of the thyroid gland. This fact led the writer to try thymus extract in cases of exophthalmic goiter. She used 0.5 Gm. tablets of Poehl's thymin, which were given twice daily. A typical case of the disease gained 30 pounds in two months and improved so markedly that a contemplated operation was no longer indicated. A number of patients in whom operation had failed to yield improvement lost all of their symptoms as a result of the thymus treatment. In view of the harmlessness of the treatment it seems to deserve a trial. The drug was also found useful to overcome insomnia in neurasthenics, 2 tablets being given before bedtime. Rahel Hirsch (Deutsche medizinische Wochenschrift, Nu. 44, 1913).

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Pituitary Extract in the Treatment of Basedow's Disease.—The author reports the case of a man 32 years of age who had lost 30 kilograms in weight in a year's time. Upon admission he showed tremor of the hands and feet and was suffering from insomnia, diarrhea, vomiting, and dyspnea, and exhibited von Graefe's sign, a pulsating goiter, and a rather pronounced tachycardia. He was placed upon a vegetarian diet and given subcutaneous injections of pituitary extract for three months, receiving altogether 70 injections of ⅔ grain (0.04 Gm.) each. Under this treatment the patient's weight rose from 46 to 53 kilos., the heart rate fell from 140 to 92 or 100, the tremor lessened considerably, sleep returned, and the breathing became easier. Pal (Medical Society of Vienna; Semaine médicale, January 28, 1914).

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Metabolism after Pituitary Removal.—Report of experimental work on the metabolism of the hypophysectomized dog. The following conclusions were reached as to the effects of the operation: 1. A tendency to retard the normal growth of the animal; gain in weight principally due

to fat deposition. 2. A tendency to slightly lower body temperature, which by the time of death may result in a marked drop. 3. A marked fall in pulse and respiratory rates. 4. A marked fall in total metabolism as measured by carbon dioxide production. 5. Growth checked and infantile characteristics preserved; sexual activity, if not already present, never develops; if nearly or quite established, it is profoundly affected. 6. Sometimes a falling of hair and thickening of the skin is noted. The change in adult animals is hardly noticeable. Benedict and Homans (Journal of Medical Research, vol. xxv, No. 3, 1912).

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Obstetric Observations Pertaining to Internal Secretions.—Report of the cases of 2 patients, one a primipara of 27, the other a multipara of 42, who after simple spontaneous labors died within a few hours of vasomotor paresis. The pulse ran up to from 150 to 180, and was irregular and thready; this was followed by a drop to about 65, with low tension. A number of somewhat similar cases reported by other men are also mentioned. The author calls attention to the frequency with which thrombosis or embolism is given as a cause of death, and how infrequently it is found in cases coming to autopsy. It seems more probable that this cardiovascular collapse is due to some marked disturbance of internal secretion. The adrenal is the gland that is considered mainly responsible. Good (American Journal of Obstetrics, June, 1913).

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Adrenal Lesions from Tapeworm Toxins.—Of all the glands with an internal secretion, the adrenals seem to suffer most from the toxic action of helminths, whether the intoxication be acute or chronic. The thyroid may also show lesions, though infrequently except in subacute and chronic intoxication from this cause. The other ductless glands show but slight lesions. The author's research was done on guinea-pigs, injected with extracts of various tapeworms or with juice from a horse ascaris. The character of the lesions seemed absolutely the same, whatever the helminth, and the reaction seemed of the same nature as that due to microbic toxins or most chemical poisons. Bedson (Annales de l'Institut Pasteur, August, 1913).

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Claude Bernard-Homer Syndrome in a Case of Goiter.—The authors report the case of a patient who had had a goiter since the age of 13, and developed a ptosis of the left upper lid, with exophthalmos and myosis easily observed in the dark, but without loss of the light reflex. There was no motor disturbance of the eye or dilatation of the central artery of the retina, but there was marked redness of the left cheek and ear. The condition was thus plainly one of paralysis of the cervical sympathetic from pressure by the thyroid body (not actually by the left lobe itself, but by a deep extension of this lobe to the left of the esophagus in the prevertebral region). C. and H. Fromaget (Journal de médecine de Bordeaux, March 8, 1914).

Department on General Medicine

Cyclopedia of Current General Literature

Appendicitis in Small Children, Diagnosis of.—From observation of 6 cases of appendicitis in children 15 months to 4 years of age the author concluded that these patients show no sign of localizing appendicular pain. Some scream and manifest violent anger; others seek to push aside with the hand something causing discomfort over the abdomen. Tenderness in the right iliac fossa is not present. In order to elicit an entirely unconscious sensitiveness in these cases, an indirect method such as those employed in the diagnosis of coxalgia in infants must be used. When light pressure is made over both iliac fossæ, the child will be seen to execute slight movements of the right leg. If the pressure be increased, the right leg will become rigid and irregular movements of the left leg executed. Often the face will be observed suddenly to flush when pressure is made with the finger over the appendix. Muscular rigidity is so slight as to be hardly perceptible. The prognosis in these cases is grave, as the child cannot keep completely still or withstand strict dieting. Operative intervention should be considered whenever the symptoms do not show a tendency toward prompt betterment. V. Veau (Société de Pédiatrie, Paris, January 13, 1914; Quinzaine thérapeutique, February 10, 1914).

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Arthritis, Diagnosis of Chronic.—In the presence of a case of arthropathy the author finds it often convenient for diagnostic purposes to consider the following groups in serial sequence:—

I. *True chronic gouty arthropathy* is usually easy to recognize, at any rate in the typical cases. In atypical cases there may, however, be some difficulty in distinguishing it from atrophic or infectious forms of arthritis. The X-ray findings in a gouty joint are sometimes distinctive (spherical foci in the bone substance near the joint, or often in the form of a semicircular defect of the articular surface of a bone, with sharp, punched-out margins; if such a lesion be present in a joint of one foot there is often a similar lesion in the same joint of the other foot).

II. The *neuropathic arthropathies* are ruled out if, in addition to the examination of the joints, a thorough neurologic investigation be made (tests of sensibility, knee-kicks, pupils, etc.). Moreover, the sudden onset, the marked enlargement of a single joint, and the absence of severe pain are characteristic. The X-rays show bizarre, monstrous hypertrophic lesions; besides excrescences upon the bone and huge calcified free bodies, calcified masses are usually visible in the extracapsular tissues and there is usually extreme disintegration of the joint.

III. The (*primary*) *hypertrophic osteoarthropathy* (osteoarthritis hypertrophicans or deformans) is usually easily recognizable. Though

most often met with in advanced life, the same, or a similar, malady may occur in youth, especially after slight trauma. One joint is chiefly affected, or several joints (usually only a few) may be involved. This monoarticular or oligoarticular distribution is in marked contrast with the more general polyarticular distribution of groups IV and V. The large proximal joints of the extremities are most often involved (hips, shoulders, knees). There is an absence of the steady progression characteristic of group V. Both sexes are affected, males predominatingly. The general health may be but little disturbed. The disease does not lead to true ankylosis, though the joint movements may be somewhat limited through interlocking of exostoses. On palpation, lipping of the bone at the edge of the cartilage may be sometimes made out. Free bodies are common. In radiograms the joint-slits are often well preserved, though the cartilage may be eroded, accounting for the grating which may be palpable on movement of the joints. A history of trauma is common in these cases. The disease is often asymmetrical. Among the monoarticular forms, the so-called malum coxæ senilis is included. One of the spinal arthropathies (spondylitis deformans) appears to belong in this group.

IV. In considering the possibility of a *chronic arthropathy secondary to some infectious process*, it is well to think first of the arthropathies due to tuberculosis, lues, lepra, etc. Here the white swelling (*tumor albus*) of Wiseman, a suppurating fistula, the anamnesis, the presence or absence of lesions elsewhere in the body due to the primary disease, the study of X-ray plates (destructive processes in tuberculosis; subperiosteal swellings, regular or irregular in outline, in lues), the Wassermann reaction, and the tuberculin tests may help to clear up the diagnosis. After lues and tuberculosis have been excluded, the anamnesis may be gone into with reference to a preceding acute infection, either of the joints or other parts of the body. In many cases recorded as "chronic rheumatic arthritis" following acute articular rheumatism, the authors were in reality not dealing with a chronic arthritis following this affection at all, but with one following some one of the various other forms of acute infectious arthritis. Cultures from the blood, from the joint-fluid, or from a regional lymph-gland, complement-deviation tests, tests for bacteriolysins, agglutinins, etc., may occasionally be of help. This study may be followed by a systematic physical examination in which the various possible primary foci of infection, prostate and urethra in the male; Bartholin's glands, urethra, and cervix in the female; nose and paranasal sinuses; pyorrhea alveolaris, abscesses at the roots of the teeth (X-ray), chronic tonsillar infection (palatine or pharyngeal), and chronic otitis media, should be sought for. If the case be seen in the latter stages, a marked asymmetry of the joints affected, an absence of steady progression, or the complete ankylosis of single joints, may speak for this rather than the succeeding groups.

V. If the case does not belong to one of the first four groups it is most important from the standpoint of prognosis to decide whether or not it

belongs to group V, that of the so-called *primary chronic (progressive) polyarthritis.*

Clinically, this may appear as either one of two subvarieties. In both of these, the involvement is outspokenly polyarticular, the small distal joints usually being involved first. Later, the knees and elbows may become involved; the hips and shoulders frequently escape. These small joints become involved symmetrically. The jaw joint and the sternoclavicular joint are not infrequently affected, but usually asymmetrically.

In one subvariety (*A*) the disease may begin either insidiously or with an acute, or subacute, stage, with fever; in both forms of onset a striking feature is the periarticular swelling. Most of the small joints in the distal parts of all four extremities may become affected in serial sequence. The subvariety *A* is sometimes called the *exudative type* and corresponds to the "chronic infectious arthritis" (in part) of Goldthwaite.

In the second subvariety (*B*), most often met with in women near the menopause, the onset may be very insidious. The patients complain of formication, of chilly feelings, and of slight stiffness of the metacarpophalangeal and interphalangeal joints (except those of the thumb). Muscular atrophy quickly appears, especially of the interossei. Contractures gradually develop. The disease spreads to a large number of the more distal joints in all four extremities. The fingers become deflected ulnarward. On X-ray examination the joint-slits are found to have disappeared, owing to atrophy of cartilage; the bones are softened, and may have undergone distortion or telescoping, and they are usually markedly atrophic—so-called "atrophic arthritis" of Goldthwaite.

The subvariety *A* can certainly be simulated by chronic gonorrheal polyarthritis; X-ray plates will not distinguish between them. In lues hereditaria tarda a similar arthropathy is sometimes seen, but it should not be difficult to exclude it.

The absence of endocardial and pericardial changes in "primary chronic progressive polyarthritis" is striking when contrasted with the findings in acute rheumatic fever, the acute pseudorheumatisms, and in the chronic infectious arthritides.

Subvariety *B* is often (some think always) an end-stage of a condition beginning as subvariety *A*. It is possible, too, that later group V will not be considered separately as a disease *sui generis*, but will be placed in group IV; *i.e.*, it may be that the clinical appearances described as V may follow upon a variety of infections. For the present, however, the weight of evidence seems to the author to favor the view that V is really an independent disease. Lewellys F. Barker (American Journal of the Medical Sciences, January, 1914).

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Constipation, Treatment of.—The author presents the following outline for the treatment of constipation, based on a combination of the psychic method advocated by Dubois, and dietetic, hygienic, and medical measures: Treatment begins in the early hours of the morning. During the night the slow movement of the intestines has brought to the rectum all the waste products of food. This constitutes the first of a series of

stimuli to defecation. The act of waking itself constitutes the second stimulus. The patient is directed to concentrate his mind on the act; voluntary muscular movements are executed, such as stretching, deep breathing exercises, and certain gymnastics, *e.g.*, leg movements, trunk movements, and head and leg exercises by which the muscles of the abdominal walls are brought into play. According to the disposition and constitution of the patient, baths of various forms are advised, a cold plunge to the robust, the cold sponge or the cold sitz bath to others. The water should be at a temperature of 54° or 57° F., and the patient is directed to stay in five or ten minutes with a cold compress to the head, and to rub the abdomen with his hands. A glass of cold water, or in some cases a glass of warm water, is taken as soon as the patient comes out of a bath. This constitutes a fourth stimulus. Next comes a short walk in the open air, followed by breakfast. This should be hearty and consist of bread and butter, particularly of whole wheat or graham bread, orange or grapefruit, oatmeal or cereal of some kind, and eggs or chops. If the patient is a smoker who has felt the good effects of a cigarette, he is permitted to use it. Next, the patient should go to the toilet regularly one hour after the beginning of his breakfast. Thus there will have been offered to the intestines 6 successive invitations to act, any one of which would have been enough for a subject not constipated.

If it becomes necessary to resort to colonic irrigation, it is at this time it should be used. Vinegar enemata (water and vinegar in equal parts), soap enemata (5 drams of green soap dissolved in 6 ounces of water), salt solutions, glycerin in small doses (1 to 5 c.c.), or a glycerin suppository may be used; 400 or 500 c.c. of pure olive or cottonseed oil may be injected rectally under low pressure. Such enemata should not be used oftener than once a week.

Rectal faradization may be used, or in cases of feces impacted in the rectum removal may be brought about manually or by the Ebstein method.

During the morning hours, walking and horseback riding should be advised. Deep-breathing exercises while at business, with the drinking of plenty of water, 6 or 8 glasses daily, are useful. In the diet one must forbid all foods which delay intestinal activity and supply those that hasten it.

Cathartics should not be used oftener than necessary, and in decreasing doses. Cascara sagrada in the form of fluidextract taken alone, 5 to 30 drops before each meal, or at night with the syrup of orange peel, 1 dram of each, is efficacious. Dry extract of cascara sagrada with rhubarb will also be found useful:—

℞ Fluidextracti rhamni purshianæ, ℥iss.
Misturæ rhei et sodæ, ℥ij.

M. Sig.: One teaspoonful three times a day before meals.

Podophyllin in doses up to ¾ grain is useful. Castor oil stands halfway between those cathartics which can be used every day and those that cannot. The simple aloes, strychnine, and belladonna pills find many advocates. Saline cathartics, mineral waters, or small doses of calomel may also be used. J. P. Chapman (New York Medical Journal, March 7, 1914).

Dysentery, Treatment of.—A treatment originally advocated by Eichhorst, viz., an injection of 2 per cent. solution of salicylate of soda into the bowel, is strongly advised by the author. The dose in adults is: sodium salicylate, 13 Gm. (3¼ drams); water, 650 c.c. (1⅓ pints).

Calomel, 0.3 Gm. (5 grains), is first given. Barley water and boiled milk are ordered for the first day or so, with warm applications to the abdomen. After six hours the injection is given, with a small dose of Dover's powder. The injections are repeated if necessary on the second and fourth, or third and fifth days, etc. In chronic dysentery a 10 per cent. decoction of simaruba bark, 1 dram (4 Gm.) every three hours, is used. In children about 90 Gm. (3 ounces) of the salicylate injection should be used. The injections should be at body temperature. W. Lutsch (Münchener medizinische Wochenschrift, Band lxi, Seite 476, 1914).

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Dysmenorrhea, Treatment of.—The upright position, with the valveless vena cava, causes uterine congestion, which tends to become exaggerated when the abdominal muscles are lax, when costal breathing is employed, and by clothing, etc., that interferes with the action of the respiratory muscles. The author has corrected these conditions in many cases by the following method: All tight clothing having been removed, the woman is placed on her back, on a level surface, in the horizontal position. The knees are flexed and the arms placed at the sides to secure relaxation of the abdominal muscles. One hand is allowed to rest on the abdominal wall, without pressure, to serve as an indicator of the amount of movement. The woman is then directed to see how high she can raise the hand by lifting the abdominal wall; then to see how far the hand will be lowered by the voluntary contraction of the abdominal muscles, the importance of this contraction being especially emphasized. This exercise is repeated 10 times, night and morning, in a well-ventilated room, preferably while she is still in bed in her night-clothing. She is cautioned to avoid jerky movements and to strive for a smooth, rhythmic raising and lowering of the abdominal wall. The results have been that the pain has been lessened in many cases and wholly removed in a large number. C. D. Mosher (Journal of the American Medical Association, April 25, 1914).

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Eye, Ethylhydrocupreine in Pneumococcus Infection of.—The author reports on 30 cases of ulcerative pneumococcus infection of the eye, disease of the lachrymal sac, and conjunctivitis treated with instillations of the hydrochloride of ethylhydrocupreine, a derivative of quinine, in 1 per cent. aqueous solutions, which were allowed to remain for about half a minute in the conjunctival sac. In the ulcers atropine was used, but no warm applications. Stronger solutions than 1 per cent. caused superficial necrosis of the conjunctiva, and 2 per cent. solutions in oil were insufficient. Subconjunctival injections of 1 per cent. solutions caused intense chemosis and 2 per cent. solutions necrosis. A 1 or 2 per cent. salve, applied 5 or 6 times, had the same effect as the solution. Ethylhydrocupreine rapidly and securely

sterilizes the conjunctival sac and overcomes serpiginous ulcers, with subsidence of hypopyon. In accordance with the experimental results of Morgenroth, the rapid and complete sterilization is due to disinfection, not immunization. The curative effect on pneumococcus infection of the human eye is specific, as follows from the disappearance of the pneumococci from the conjunctival sac, while it has no influence on staphylococci, diplobacilli, and actinomycosis. It is also a prophylactic, as may be inferred from the rapid disinfection of the conjunctival sac and the prevention of infection of artificial erosions of the cornea. H. Sattler (Klinische Monatsblätter für Augenheilkunde, Oct.-Nov., 1913; Ophthalmology, April, 1914).

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Fibrositis, Chronic.—Chronic fibrositis of the joints is most frequently met with in the knuckle and finger-joints of those engaged in hard manual labor, especially when associated with damp surroundings. Pads upon the finger-joints constitute a chronic form of localized fibrositis. They form excrescences, which are almost confined to the dorsal aspects of the interphalangeal joints of the proximal row, and are only very rarely seen upon the terminal joints of the fingers. They are usually present upon the fingers of both hands, and vary in size from that of a split pea to that of the half of a hazelnut. Sometimes they are quite painless, but more often pain of various degrees of severity is complained of, especially when the fingers are flexed or if the lumps are knocked. Patients suffering from these pads generally seek medical advice under the apprehension that they are the precursors or accompaniments of rheumatoid arthritis, or that they are due to chronic gout. There does not, however, appear to be any connection between these pads and either rheumatoid arthritis or gout. There is, however, an intimate connection between them and Dupuytren's contraction of the palmar fascia, and it is fairly common to see the two conditions together. A. P. Luff (Lancet, February 14, 1914).

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Furunculosis of the External Auditory Canal, Treatment of.—The main object of the author's treatment with alcohol is the constant sterilizing of the pus and canal wall, thus preventing reinfection. The technique is as follows: The canal is cleaned of cerumen, desquamation, discharge, foreign bodies, or polyps. A wick is now inserted into the canal, nearly to the drum membrane, completely filling the lumen. If there is no discharge, cotton is used. If there is a discharge, gauze wick is used. If the canal lumen is partly closed by one or more distinct "ripe" furuncles, these should first be incised and the pus evacuated. Any incision should be carefully made into the center of the furuncle, for, if this is not done, the pus does not escape and the patient is not relieved. In addition, there is danger of infecting a new area, and a perichondritis sometimes results from trauma to the cartilage. A probe point will often help to locate the center of a furuncle.

After being inserted snugly into the canal, the wick is saturated with alcohol, plain or with boric acid, and the patient is instructed to keep the wick wet by dropping alcohol upon it

at frequent intervals. The wick should be removed daily by the physician and a fresh one inserted. Whenever a pocket of pus can be located, it should be incised. After incision, the alcohol should be applied before the patient recovers from the anesthesia. The alcohol smarts on freshly cut or abraded surfaces with the first application, but gives very little discomfort at later applications.

Following this treatment some of the early mild cases become abortive without surgical incisions. If the pain is severe, and no pus can be definitely located, it is better to administer an internal sedative and wait for the boil to become "ripe," and the pus to localize, rather than to make incisions at random. The canal should be moistened with alcohol for a time after apparent cure to insure against an immediate return of infection. Oliver A. Lothrop (Boston Medical and Surgical Journal, October 30, 1913).

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Hay Fever, Etiology and Treatment of.—For two years the author has been observing ragweed because he finds that it is the only flowering plant which has a wind-borne pollen during the period between July 1st and September 15th. Goldenrod is dismissed as a causative factor because its pollen is not wind-borne. The ragweed pollen is distributed when the sun warms up the air held in its oily envelope, and its production is most prodigious. The author is convinced that it is constantly in the air of the country and city, and estimates that 1 Gm. contains 172,800,000 pollen grains. He has made extracts according to Dunbar's method and treated 12 cases with considerable success in giving relief from the symptoms. He is convinced from the manner of its production and its short duration that he was producing a refractory or inhibitory phase of hypersensibility.

There are three ways of meeting the autumnal hay fever: 1. The eradication of ragweed. 2. The removal of the patient from the ragweed environment. 3. The production of antihypersensibility. The first of these is more practical than is commonly realized; ragweed can be exterminated. The second method is available only to the favored few, while in the third a glimmer of hope for the many thus afflicted may be seen. H. L. Ulrich (Journal of the American Medical Association, April 18, 1914).

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Heat and Infant Mortality.—The action of heat as a direct cause in the summer mortality of infants has been greatly underestimated. In the future much more weight should be given to its influence. The lethal action of heat is a function not so much of the maximum and mean temperatures of the external air as of the indoor temperatures, which, in the late summer, may continue to be high in spite of remissions in temperature of the external air.

The action of dirty and stale milk in causing the death of infants has been given a significance which has overshadowed other factors of equal or greater importance. There is evidence to show that a certain proportion of infant deaths are due to specific infections, in the dissemination of which contact infection and flies doubtless play a part.

Future activities for the prevention of infant mortality must concentrate

themselves to a greater extent on the question of housing, especially the conditions productive of higher indoor temperatures, such as overcrowding, narrow streets, and the absense of through ventilation. Poor housing conditions can be partially neutralized by the proper care of babies in the summer. The general public should be educated as to the importance of high indoor temperatures in causing the death of infants, and especially as to measures which prevent babies from suffering from the heat.

Breast feeding must still be regarded as a most, if not the most, important preventive of the summer death of infants. J. W. Schereschewsky (Archives of Pediatrics, December, 1913).

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Hemorrhage, Tincture of Iodine in Gastrointestinal.—The author finds tincture of iodine a valuable hemostatic in hemorrhage from gastric or intestinal ulcers. In one severe case of typhoid fever hemorrhage persisted in spite of the application of an icebag and the administration of gelatin, lead acetate, opium, ergotin, and strychnine. The condition being critical, the author as a last resort prescribed tincture of iodine, in small doses at short intervals. The diarrhea and hemorrhage soon ceased, and the patient recovered after taking the mixture for twelve days without a sign of iodism. Five similar cases treated in the same way showed equally satisfactory results. The diarrhea was rapidly checked in most cases. When it failed, the diarrhea was very likely due to a mixed infection. In one case of intestinal hemorrhage of unknown origin, but probably gouty, the bleeding was likewise promptly arrested. In 4 cases of hemorrhage from a gastric ulcer the author found the action of tincture of iodine rapid. It also relieves the abdominal tenderness in this condition, and probably assists in cleaning and cicatrizing the ulcer. Nottebaum (Deutsche medizinische Wochenschrift, December 4, 1913).

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Infant Feeding, Whey-modified Milk in.—A mixture of 20 per cent. cream, and full milk, of each, 140 c.c.; water, 700 c.c., and potassium chloride, 0.2 Gm., has the same percentage of salts and fats as human milk, but less protein and less sugar. If, however, dextrose and maltose are added, a mixture suitable for an infant under 3 months is obtained; or, if dextrose and maltose, 50 to 70 Gm., and nutrose or plasmon, 5 Gm., are added, a mixture suitable for an infant over 3 months of age is obtained. If flour is used it must be boiled with the sugar-casein preparation and water for fifteen minutes. If no flour is used the mixture is simply brought to the boiling point. This food was used by the author for institutional infants with uniformly good results, approaching closely to those in breast-fed infants. J. S. Leopold (Archives of Pediatrics, January, 1914).

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Nasal Catarrh, Acute and Chronic.—The treatment the author finds most useful in cutting short *acute coryza* is the following: 1. A single pill of morphine, ⅙ grain, made up with a little capsicum and oil of mint. A small dose of nitroglycerin also is advantageous. 2. In two hours 10 grains of acetylsalicylic acid. 3. A

hot bath. On the following morning, a purgative dose of magnesium sulphate is given to clear away the intestinal contents held back by the morphine.

The object of local treatment at this time is to cause a profuse secretion of watery mucus, to wash away the organisms immediately they show signs of their presence. Neither a nasal douche nor a spray should be employed, but an irritant antiseptic ointment will best fulfill the purpose, *e.g.,* one of the so-called "analgesic balsams," usually containing menthol, methyl salicylate, and oil of wintergreen in a lanoline base. A small portion of such an ointment is inserted well up into each nostril, where, if sniffed back, it gives rise to considerable smarting and secretion. It should be applied frequently despite the pain. A period of relief will follow and then the nose can be sprayed repeatedly with a sedative preparation, such as chloretone inhalant. Despite the pain caused by the menthol-salicylic preparation, no cocaine should be employed at all, as it paralyzes the ciliary epithelium and opens the way for fresh infection.

If the above treatment is completely carried out, it will materially shorten the duration of the local symptoms of an acute coryza, and will almost entirely prevent the feverish toxemic symptoms.

If an acute nasal catarrh does not subside in a few days, especially if there is slight discharge with persistence of feverishness at regular intervals, with headache occurring at about 10 A.M. and passing off later in the day, a few drops of menthol in alcohol should be added to almost boiling water and the steam inhaled.

In involvement of the antrum of Highmore, it is well to wash it out through a Lichtwitz trocar daily until the washings are clear. Cocaine (20 per cent.) is well rubbed into the inferior meatus at the junction with the inferior turbinal; then, with a gentle boring movement, the Lichtwitz trocar is passed through into the antral cavity. Through the cannula a saturated solution of boric acid should be syringed. This should be done daily, and will in nearly every case clear up the sinus. The other sinuses are well situated for drainage, with the exception of the sphenoidal sinus, for which catheterization is the best treatment.

If an acute catarrh of the frontal sinus does not clear up in a few days, the anterior end of the middle turbinal should be removed, and also, if necessary, the uncinate process, which is sometimes so large as to give the impression of a double middle turbinal. After this amputation, cocaine (20 per cent.) and epinephrin should be rubbed well into the region of the infundibulum; a frontal sinus catheter should then be passed, and with great gentleness an attempt made to wash out the frontal sinus.

In the treatment of *chronic nasal catarrh* it is absolutely essential to perfect the patient's general health. Many patients will be cured if they adopt a healthy, open-air life, with abstention from tobacco, alcohol, and sexual excesses. Calomel on alternate evenings, with magnesium sulphate in the morning, will relieve portal congestion. Turkish baths at the rate of one per week are very beneficial.

Local treatment, if there is copious

secretion, practically resolves itself into simple lavage; it must be persisted with. The following combination is efficient and inexpensive:—

℞ Powdered boric acid,
Sodium bicarbonate,
Sodium chloride, equal parts.
Add a little menthol.

The powder is well mixed and ground; before use, it is shaken well to mix the constituents, and one teaspoonful is added to a pint of tepid water. A ball syringe should be employed, but great gentleness is required; there is no danger of injecting into the sinuses if the head is bent a little forward, and rapid expirations are made through the mouth. On no account must a swallowing movement be made.

If there is a tendency to local dryness and crusting, with practically no liquid secretion, treatment is best carried out by means of an oily solution sprayed with an oil-atomizer. The following is a good formula:—

℞ Menthol, gr. v.
Camphor, gr. ij.
Oil of eucalyptus, ♏iij.
Oil of sweet almonds, to make ℥j.

If there is considerable irritation, chloretone inhalant will be found very useful. If, on examination, so much obstruction is found that no shrinkage occurs with cocaine-epinephrin, then, before any treatment of the catarrhal condition can be successful, it will be necessary to insure a free respiratory passage by operation. William Wilson (Practitioner, October, 1913).

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Neosalvarsan, Experience with.— Of 56 patients treated with neosalvarsan by the author, 45 were given intravenous injections; 1 of these received two, 17 three, and 27 four injections, the treatment being given as far as possible every other day. The intramuscular method was tried in 11 cases, 1 patient receiving two and the others single injections.

In several cases of nodular syphilide the result was as gratifying as that usually obtained from the use of salvarsan. In the treatment of gummas of the skin and mucous membranes the effects of the remedy varied considerably. A deep ulcerative gumma of the leg had not entirely healed at the end of eight months, the patient having received 4 intravenous injections, although an extensive nodular syphilide upon another part of the body had healed promptly.

Mucous membrane lesions showed the same tendency to rapid disappearance as with salvarsan. One case of condylomata, however, did not clear up until the end of five weeks. There was no objective change in a case of leucoplakia.

A case of iridocyclitis cleared up in three weeks. A most gratifying result was obtained in a case of marginal keratitis occurring in an adult. Twenty-four hours after an intramuscular injection, the redness and photophobia had disappeared, and on the third day the patient was able to read. A case of hereditary interstitial keratitis not only failed to improve after three injections, but, at the end of one month, the second eye became involved.

The result of treatment in several cases of bone syphilis was most satisfactory. A patient with periostitis of the knee and ankle was given four intravenous injections. Although the knee had been stiff for six months, it

was perfectly normal on the day after the second injection. In a case of osteoperiostitis of the femur of three years' duration, however, no improvement resulted from four intravenous injections except a lessening of pain during the night.

In 2 cases of latent syphilis with persistent headaches there was only temporary improvement after treatment. One case of tabes showed improvement in gait and in general strength, though after the last injection he became sexually impotent.

The effect of neosalvarsan upon the Wassermann reaction was far from satisfactory. Of 36 cases treated by three to four intravenous injections, and followed serologically on an average over five months, 1 case became completely negative and remained so for four months; 2 became negative, and 2 almost negative, but later relapsed and became partially positive. A lessening in the strength of the reaction took place in 16 cases, while in 15 cases there was no change.

The intramuscular method was tried in 11 cases, the remedy being given as an emulsion with iodipin oil. The results in some cases were exceedingly good, and compared favorably with those obtained by repeated intravenous injections. They were, however, decidedly painful in all except 2 of the cases. The pain, induration, and lameness that followed more than counterbalanced the time and trouble of giving several injections by the intravenous method.

Conclusions: (1) neosalvarsan is an excellent symptomatic remedy for the treatment of syphilis; (2) its symptomatic action seems to be slightly weaker than that of salvarsan when used in corresponding amounts; (3) its serologic action seems to be considerably weaker than that of salvarsan; (4) it possesses a decided advantage over salvarsan in the greater ease and rapidity with which it can be prepared and injected intravenously; (5) intravenous injections of neosalvarsan are much less disturbing to the veins than injections of salvarsan. Howard Fox (American Journal of the Medical Sciences, January, 1914).

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Postpartum Sepsis, Treatment of. —Until recently many, and still no small number, curette the uterus in cases of postpartum sepsis. In any case of puerperal septicemia, the author maintains, the curette is contraindicated. The most common abuse of the curette in these cases is when a sapremia is present from retained material in the uterus. In many cases that which would otherwise have resulted in an uneventful recovery terminates, because of curettage, in a prolonged sickness and often in death. In all cases of postpartum or postabortal infection the type of infection must be determined, and in every type but one the uterus should be left alone.

The method substituted for curettage by the author is as follows: The patient being ready, the cervix is held by a guy rope and dilated. In all cases, except where the cervix is widely dilated, he first uses a dressing forceps, then a small dilator, and lastly a large dilator. In dilating he rotates the dilator slowly and tries to equalize the pressure on all parts. By thus "ironing" the cervix and using different-sized dilators, little or no injury is done to the cervical canal. After the uterus is dilated, strips of

gauze from 6 to 8 inches long are soaked in a 50 per cent. dilution of tincture of iodine. A strip of the iodized gauze is introduced into the uterus with the aid of a uterine sound. This is left about a minute, removed, and another strip of the iodized gauze introduced. As a rule, from 5 to 8 strips of gauze are used. When a drain is required, the last strip used is left in the uterus. This is removed, as a rule, in about eight hours.

In postpartum and postabortal cases where material is in the uterus, when it is known a sapremic condition is present even in the face of temperature, the author uses the iodized gauze as already described, with the exception that he introduces and retains from 2 to 5 strips of gauze at once. Then, the ends having been secured with a clamp, the gauze is twisted and gradually withdrawn. This process is repeated two to four times. (First the material in the uterus is removed as completely as possible with ring clamps; this is done without traumatizing the cavity of the uterus.) As a final step one strip of the iodized gauze is left in the uterus as a drain.

The 50 per cent. tincture of iodine has several advantages. It is readily absorbed into the tissues, whereas the official tincture is not. In cases of endometritis it does the work which the curette was originally supposed to do. In atonic conditions and subinvolution, before the process is finished the uterus contracts. If infectious organisms are present either in the uterus or the vaginal tract the iodine renders them harmless. It does not necrose the tissue and does not get into the tubes, as some authors have claimed. In 3 cases the author did not use the gauze, but injected the iodine with a syringe. Later, opening the abdomen, he failed to see any evidence of iodine in the tubes. In cases following labor and abortions, with retained material and a temperature of 104°, the method described was carried out and within eight hours the temperature fell to normal or 1° above normal.

In small uteri and cases of sterility where the husband was not at fault and the trouble seemed to be with an undersized uterus, a tight cervix, or an acute anteflexion, etc., the cervix was thoroughly dilated, iodized, and a glass stem pessary sewed in it after the method of Baldwin. The curette was not used. In misplaced uteri the endometrium was iodized and the misplacement corrected.

After experience in 208 cases the author has reached the conclusion that the 50 per cent. tincture of iodine, employed with the proper technique, is much to be preferred to the curette. Thurston Welton (Long Island Medical Journal, March, 1914).

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Psoriasis, Treatment of.—It is well to remember, according to the author, that psoriasis patients are considerably demineralized. Consequently it is necessary to furnish salts of lime, chloride of sodium, and phosphates to the system.

℞ Calcium carbonate, gr. x (0.6 Gm.).
Calcium phosphate, gr. vij (0.5 Gm.).
Magnesium oxide,
Sodium chloride, of each, gr. j (0.06 Gm.).
For one cachet. Three to be taken daily.

In generalized psoriasis with large red patches indicating great irritability of the skin the local treatment should not be too active. The physi-

cian should content himself with prescribing anodyne ointments, zinc oxide, and starch baths. When irritation has more or less subsided, a more energetic treatment may be instituted. As a beginning, the following ointment may be applied:—

℞ Oil of cade,
Zinc oxide,
Talc powder,
Oil of sweet almonds, equal parts.

After a few days of this treatment, the reducing ointment of Gaucher may be prescribed:—

℞ Sulphur,
Camphor,
Salicylic acid, of each, gr. xv (1 Gm.).
Oil of cade, ʒiij (12 c.c.).
Zinc oxide, ʒv (20 Gm.).
Petrolatum, ʒj (30 Gm.).

The patient should apply this at bedtime, and wear drawers and an undershirt to be changed but once a week.

In the morning he should remove the ointment with soap and take a bath medicated as follows:—

℞ Oil of cade, ʒiv (120 c.c.).
Black soft soap, ʒj (30 Gm.).
Water, Oj (500 c.c.).
To be added to the bath.

He should remain in this bath as long as possible,—half or three-quarters of an hour,—then dry himself and proceed to his occupations. At night the ointment is to be reapplied.

After ten or twelve days of this treatment, the condition of the patient will be much improved; some of the patches will have faded out, and fresh eruption will have ceased.

At this period the doses for the baths can be increased if the patches are disseminated, or the strength of the ointment if they are localized. For the baths, chrysarobin may be added, provided the kidneys are in good condition.

℞ Oil of cade, ʒiv (120 c.c.).
Yolk of eggs, 2.
Extract of quillaja, ʒv (20 Gm.).
Chrysarobin, gr. xv (1 Gm.).
These baths are to be taken twice a week.

At this period Drew's ointment may also be applied, but only over small surfaces:—

℞ Salicylic acid, ʒiij (12 Gm.).
Chrysarobin,
Tar, of each, ʒv (20 Gm.).
Green soap,
Petrolatum, of each, ʒj (30 Gm.).
This ointment is to be put on at night.

At this point the patient is in a good way to recovery; only isolated patches are found on the scalp, elbows, etc. One bath a week is now sufficient. The local patches should be treated with traumaticine and chrysophanic acid contained in two separate bottles. The first consists of:—

℞ Gutta percha, ʒj (4 Gm.).
Chloroform, ʒix (36 c.c.).

and the second of: —

℞ Chrysophanic acid, ʒj (4 Gm.).
Ether, ʒix (36 c.c.).

After removing as much as possible the scales by dry rubbing with a towel, the area is washed with soap and dried, and the chrysophanic solution then applied to the patch of psoriasis with a brush, care being taken not to exceed the limits of the lesion. The traumaticine is then painted over the surface and a little beyond the limits of the patch, an occlusive dressing thus resulting. At the end of two or three days the patient repeats the procedure. Gougerot (Medical Press and Circular, January 7, 1914).

Puerperal Sepsis, Treatment of.—In the septicemic form of puerperal sepsis the general symptoms are chills, rapidly rising temperature and pulse, and physical depression out of proportion to the other symptoms. The local symptoms are foul discharge, which is sometimes absent, reddened and edematous labia, false membrane formation, and a subinvoluted and tender uterus. The pelvic exudate is usually late when it occurs. Leucocyte counts are usually higher than in any other form of fever in the puerperium. The first curative step is local disinfection of the genital canal, which should be done with the patient on a table. An anesthetic is not necessary. Careful cleansing of the parts followed by a 1:4000 mercuric chloride douche precedes and follows the cleansing of the uterine cavity.

If the temperature does not subside or should rise again, intrauterine douching alone is advised, the best solution being 2 drams (8 c.c.) of tincture of iodine; 8 ounces (240 c.c.) of 95 per cent. alcohol, and sterile water enough to make 2 quarts (liters). Once daily is sufficient, and the two-way catheter should have ample provision for return flow. The only contraindication to this treatment is phlebitis, but it is not always possible to tell when this exists and which is the lesser risk. If a sharp rise in temperature follows the disinfection, further local treatment should not be countenanced. An easily digested, largely liquid diet should be given in large quantities, and the author advises alcoholic stimulation as far as tolerated. Other stimulants are often needed for the heart, but a pulse under 110 does not ordinarily require stimulation. Enteroclysis is sometimes worth a trial. Serum treatment sometimes gives beneficial results when used early and in sufficient doses. The serum must be fresh; it will not stand long transportation. Sometimes a daily transfusion of normal human blood-serum from a healthy donor seems to have given benefit and is worth trying when antistreptococcic serum fails. The use of bacterins has been less satisfactory, and colloidal silver is of doubtful utility, though as an unction it is harmless. Every physician should be ready to give surgical treatment if needed. Continual septic symptoms plus an abdominal mass, palpable above the symphysis or Poupart's ligament, call for abdominal section. This abdominal mass is almost always a cornual abscess pointing toward the peritoneum. Without operation the patients are doomed; but with it and with proper drainage (which is the main factor in success) 90 per cent. can be saved. J. C. Hirst (Journal of the American Medical Association, June 13, 1914).

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Surgical Shock, Prophylaxis of.—The author recommends Crile's method of anoci association as a means of preventing the inconveniences and dangers of surgical shock. The dangers of the quinine and urea hydrochloride anesthesia are, in the light of his experience, purely imaginary. Securing early bowel movements for preventing gas pains, which he suggested as an important step in the method, was found by him of value in a long series of cases. He regularly begins the administration of calomel in powder, usually combined with cerium oxalate, 1 grain of

the latter to ½ grain of calomel, from twenty-four to thirty-six hours after the operation, and repeats the dose every hour until 6 have been taken. From four to six hours after the last dose, or sooner if indicated, a purgative enema is given, which generally inaugurates active peristalsis. A few days or hours saved the patient seems to him to justify this routine, and even render it highly desirable. A. B. Cooke (Journal of the American Medical Association, June 6, 1914).

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Syphilis, A New Sign of.—The author has found one of the earliest signs of constitutional syphilis to be a diminution in the bone conduction of sound, coexisting with otherwise normal hearing. An apparently healthy man, with normal hearing but impaired bone conduction, should be suspected of being syphilitic. A tuning fork is struck and placed on the patient's mastoid process. When he no longer hears it, the fork is placed upon the physician's mastoid region. If the fork is still audible to the physician, the test is positive, provided the patient's hearing was otherwise acute. This reaction, which is apparently due to increased intracranial pressure, disappears for a few days after lumbar puncture. It is positive, besides syphilis, in brain tumors, hydrocephalus, epilepsy, and tetany. Beck (Münchener medizinische Wochenschrift, Nu. 50, 1913).

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Syphilis of the Eye, Salvarsan and Neosalvarsan in the Treatment of.—The 50 cases reported on by the authors include 1 case of chancre of the eyelid, 10 of interstitial keratitis, 20 of uveitis, 7 of muscle paralysis, 4 of optic neuritis, and 7 of optic atrophy. The Wassermann reaction was positive in 45 cases at the time of treatment; 3 had a negative reaction, and in 2 no reaction was recorded. Of the 10 cases of interstitial keratitis, 6 were heredosyphilitic, and 4 were acquired. In 2 patients the keratitis was complicated with dacryocystitis. All received mercury (usually in the form of inunctions) and iodide. Six patients received salvarsan and 4 neosalvarsan. The immediate effects in these cases, as in other ocular conditions, were good. There was prompt relief of pain, photophobia, lachrymation, and congestion. A good final result was obtained in all cases from two weeks to three months.

Interstitial keratitis is the most resistent lesion of the eye to antisyphilitic treatment. The clearing of the cornea is slow, but, as a rule, definite after each injection. This form of keratitis should be treated with repeated injections at rather short intervals. In the 2 cases complicated with dacryocystitis improvement in the dacryocystitis was most notable. Frequently but slight improvement follows each succeeding injection.

In acute syphilitic inflammations of the uveal tract the results are astonishing. This group included 7 cases of papular iritis, 6 of acute iritis, and 7 of general uveitis. The immediate relief from pain in these conditions was most gratifying, and what must be regarded as a good result was accomplished within two weeks in every case.

In 7 patients with optic atrophy no improvement in the nerve was noted; nor was it to be expected. In 10 cases associated with tabes the pains were relieved and the gait and station

somewhat improved. A. A. Uhle and W. H. Mackinney (Ophthalmic Record, February, 1914).

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Threshold Levulose Test of Hepatic Function.—The author calls attention to the fact that a good measure of liver functioning is afforded by the alimentary levulosuria induced by graded doses of levulose taken on an empty stomach in 300 c.c. of milk. The urine is collected every two hours after, for six hours. According as the case looks suspicious, the author gives 50, 75, or 100 Gm. of the levulose, increasing or lowering the amount by 25 Gm. after a two- or three- day interval until the limit of tolerance is reached. The tolerance for levulose is reduced in proportion to the injury of the parenchyma of the liver. The threshold response is thus a reliable index of the existence and severity of pathologic changes in the liver. The urine is tested for levulose by the Seliwanoff method, *i.e.*, by the addition to the urine of equal parts of 25 per cent. hydrochloric acid and a few crystals of resorcinol, the urine having first been shaken up with animal charcoal to decolorize it. The test is positive when, on brief boiling, a bright-red precipitate is thrown down which dissolves in alcohol, giving it a dark-red tint. The findings in about 105 cases of various liver affections show that the tolerance is materially reduced when the common bile duct is obstructed with a gall-stone and in cases of catarrhal jaundice; alimentary levulose follows ingestion of even 50 Gm. levulose. With neoplasms, enough functionally capable cells are generally left somewhere in the liver, so that the tolerance for levulose is not materially reduced. The findings often throw light on the diagnosis and prognosis, and the simplicity and ease of the test, and the fact that it may reveal pathologic conditions in the liver long after the morbid cause has been apparently eliminated, render the method very valuable. Hohlweg (Münchener medizinische Wochenschrift, October 14, 1913).

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Trigger-finger, Treatment of.—In this condition the patient closes the fingers over any medium-sized object, and, on releasing it, finds that the little finger or one of the others refuses to open. He uses his other hand to raise the finger, when it suddenly jumps up with a snap and sometimes a little pain.

This has been considered as due to a congested point somewhere along the flexor tendon where it catches under a restricting bridge of fascia covering the tendon sheath. The author has been able to locate this bridge exactly under the extreme flexure crease of the palm.

In treating a recently seen case, he painted the part with iodine, inserted a fine bistoury in the flexure crease, and, pressing the point down to the tendon, drew it along for ½ inch. Relief was instantaneous and final. A small pad of boric gauze made pressure for two days and the trouble was cured.

The tendon is easily located by thumb pressure at the crease, and is not covered by nerve or vessel. Cutting the tendon fibers lengthwise (if one wishes to cut deeply, which is not necessary) would in no wise damage the tendon.

The trouble is not a rheumatic

tumefaction of the tendon, but a crumpling of it, very much as a tape might crinkle when slack above a slot and refuse to pull back easily. Robert Abbe (Medical Record, March 7, 1914).

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Tuberculosis, Urochromogen Test in.—The authors give their experience with the Weisz urochromogen reaction in the urine as a prognostic sign in tuberculosis, covering over 113 patients. The test is as follows: Into each of 2 small test-tubes is put 1 c.c. of urine, and 2 c.c. of distilled water are added; to one tube, which is to be tested for urochromogen, 3 drops of 1 : 1000 solution of potassium permanganate are then added. The appearance of the faintest yellow color shows the presence of urochromogen and is easily detected by comparing with the control-tube, to which no potassium permanganate is added. The test is read positive, however, only when the solution stays clear. The presence of a urochromogen reaction in the urine of a patient sick with pulmonary tuberculosis is for the time being of unfavorable prognostic import. Persistent presence of the reaction in the urine in spite of proper treatment probably means a hopeless prognosis. Its absence is generally, though not invariably (regardless of how sick the patient seems), of good prognostic import. Its prompt and continued disappearance soon after treatment is instituted, in a patient who showed it before treatment, is, so far as the authors' experience goes, a favorable prognostic sign, though it will take several years' observation of these particular patients to determine the point conclusively. The reaction is not an invariable guide to prognosis, but in the majority of cases is of much value. J. Metzger and H. S. Watson (Journal of the American Medical Association, June 13, 1914).

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Tuberculous Rheumatism.—Tuberculous rheumatism was first described by Poncet, of Lyons, and other French physicians. It is most rare, however, to meet with a multiple arthritis of the smaller joints in the hands, fingers, wrists, and ankles in the course of tuberculosis. The subject of the author's paper was a young lady aged 19 of healthy parents. At the age of 13 she developed tuberculous glands in the left side of the neck, these gradually spreading down to the clavicle, into the submaxillary regions, and to the right side. Her general health became seriously affected. Nothing seemed to check the infection. Five years after the onset the glands in the original focus showed signs of breaking down. It was found impossible to remove any glands, so firmly were they fixed to everything in the neck. A month after the operation the patient developed a painless, rapid effusion into the right wrist-joint, followed in a week by a similar condition in the left wrist, and followed again by swelling of all the metacarpophalangeal joints of both hands. There was very little pain, but the temperature was high, 102° F. at night and 99° in the morning for ten days. Salicylate of sodium had no effect. The right wrist was aspirated and half an ounce of fluid removed. No tubercle bacilli could be demonstrated in it, but upon injection of the fluid into a guinea-pig the latter developed tuberculosis in four weeks and showed a pro-

gressive tuberculosis extending to all the organs. Cultures from the spleen on Dorset's egg medium yielded a growth corresponding to bovine tuberculosis. A rabbit also developed a tuberculosis, although not of so progressive and severe type as the guinea-pig.

It was clear that one was dealing with a primary infection of the neck glands with the bovine bacillus, probably conveyed through milk and absorbed from the tonsils and pharynx. The secondary arthritic infection was evidently through the blood-stream. The von Pirquet reaction was most violent. There was no affection of the lungs or pleuræ.

Six weeks after the onset of joint symptoms the skin of the legs and feet became red, swollen, and brawny, and numerous bullæ appeared, which soon ruptured, discharging greenish pus. Some of these appeared on the arms; after healing, a dark-brown stain was left on the skin.

On the subsidence of the acute symptoms the author commenced a course of tuberculin T. R. (human) in very small doses, beginning with 0.0001 mg. The injections were given weekly in increasing strengths to a maximum dose of 0.01 mg. The glands subsided to half their previous size, and the joints became smaller and more movable and painless.

Both this and two other similar cases of the author's were secondary to a primary tuberculous focus in the neck glands, which is, in his opinion, almost always caused by the bovine bacillus. He can find no record of tuberculous rheumatism occurring in the course of pulmonary tuberculosis, which is most frequently the result of infection by the human bacillus. It would seem, therefore, that the bovine bacillus is much more likely to find its way into joints, and also into the blood-stream, than the human bacillus, which is generally limited in its action to the lungs, larynx, and intestines. Nathan Raw (Lancet, January 3, 1914).

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Typhoid Cholecystitis.—Gall-bladder inflammation, in the absence of lithiasis, may produce the same symptoms and signs as occur in cholelithiasis. Thus in typhoid cholecystitis there may be no history of typhoid fever, no record of any exposure to infection, and yet serious illness result. In many of these cases the Widal reaction may be negative, and the course of the illness can only be cleared up by operation and a bacteriologic examination. The symptoms in typhoid cholecystitis do not always refer to the gall-bladder. The chief symptoms are a feeling of malaise and sickness, with a slight evening rise of temperature (99.5° to 101° F.) and occasional attacks of pain accompanied by rigidity of the abdominal muscles, not always localized to any special area. These attacks, if severe, occur regularly every third or fourth day, are accompanied by vomiting and fever, and are followed as the temperature increase subsides by copious night-sweats. If during the attack, or after the acute pain has passed away, muscular rigidity is not pronounced, the gall-bladder, sensitive to touch and more or less distended, can be palpated. A. E. Morison (British Medical Journal, December 20, 1913).

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Typhoid Fever, Bleeding in.—Many writers have remarked how

often typhoid patients seem to improve after moderate hemorrhages, and if it were not for the dangers of the bleeding becoming uncontrollable or being a precursor of perforation, probably one would be pleased rather than otherwise with the least temporary benefit which so often accrues.

The author's 12 charts show how the bleeding was followed by a more or less marked fall, both in temperature and pulse rate. An improvement in the general condition was also often noted. The improvement in temperature and pulse curves, while often transient, in some cases lasted for days and even ushered in convalescence.

There is no doubt but that hemorrhage produces a profound effect upon the whole bodily economy. Thus it has been shown to bring about an increase in the flow of urine and increase greatly the intake of oxygen, with proportionate raising of tissue-oxidation. It shortens the coagulation time of the blood more than does any other single agent. Roux and Vaillard showed that it produced a rapid increase in the antibodies contained in the blood, and Dreyer and Schroeder demonstrated that it increases the specific antibodies in typhoid and paratyphoid, both in experimental animals and in man. Whitehead fully confirmed this two years ago in a study of typhoid complicated by hemorrhage, in which the agglutinating power of the blood was found enormously raised by the bleeding. Further, in toxic conditions, such as uremia and other less-defined states, where there is high blood-pressure, bleeding appears to in some way lessen the toxemia, and possibly in typhoid it may have some similar effect.

Whitehead suggested that the good effects of hemorrhage in typhoid fever might be attained and the evil ones (associated with intestinal hemorrhage) avoided by the timely use of venesection in those cases which are not doing well on account of severe infection and toxemia. With this suggestion the author concurs. But one case where this was done is shown in his series, but the sequence of the venesection was there most marked. If the removal of blood by venesection be a moderate one, say of 6 to 14 ounces, it can do no harm and may possibly be productive of great good. R. D. Rudolph (American Journal of the Medical Sciences, January, 1914).

* * *

Vioform in Affections of the Cornea and Sclera.—The author reports on his experiences with vioform. He finds it a good non-irritant, antiseptic wound powder. It may be applied as a 2 or 4 per cent. ointment with petrolatum base, or in the strength of 1 to 2 per cent. in sterile oil. It is useful in all varieties of ulcers of the cornea, with loss of substance, and injuries of the cornea and sclera, including the perforating. Through its astringent and antiseptic properties it promotes regeneration of the corneal tissue. The earlier it is applied, the greater is its effect in preventing or inhibiting infection. A. Dutoit (Archiv für Augenheilkunde; Ophthalmology, April, 1914).

Clinical Summary

Practical hints from articles and abstracts that have appeared in the Monthly Cyclopedia and Medical Bulletin during the current year.

Acne. TREATMENT. Acne vulgaris in childhood or adolescence responds well to thyroid treatment. Thymus employed with advantage in cases with enlarged thyroid and rapid heart. *Morris.* Page 11

1. Internally: Equal parts of precipitated sulphur and milk-sugar; patient to swallow several times a day as much as is held on tip of a penknife. 2. Externally: Paint at night with a mixture of 10 parts of sulphur, 25 parts of alcohol, and 5 parts of glycerin. 3. Regulate bowels. 4. Meat, eggs, cheese, and sugar to be avoided. 5. Later, a ten- to fourteen- day course of Röntgen-ray exposures, one-third or one-fourth erythem doses being applied at 6 or 8 sittings, to a total of one and a half erythem doses. 6. Four or five weeks after this course, application of mercury quartz lamp for twenty or twenty-five minutes. The skin is to be carefully protected for eight or ten days and then gone over with the comedo extractor, any red spots left being treated with sulphur. *Kromayer.* 357

Acne Keloid. TREATMENT. In early cases small, isolated nodules may be excised; they do not recur if the incision is free of the circumscribed sclerotic mass constituting the nodule. *Adamson.* 357

Acromegaly. TREATMENT. Case of acromegaly in which thyroid treatment caused headache, dizziness, vomiting, and melancholia to disappear, while pituitary treatment always caused their return. *Salomon.* 30

Alopecia Areata. TREATMENT. (1) The B. P. unguentum hydrargyri iodidi rubri (diluted from 4 to 2 per cent.); (2) the unguentum hydrargyri oxidi rubri, with acetum cantharidis, ℥j to ℥j, and (3) equal parts of sodium chloride and petrolatum found seviceable in this condition. Pure phenol often gave good results. Causes of peripheral nervous irritation, such as carious teeth, errors of refraction, or aural defects, to be investigated. In severe cases pilocarpine nitrate, injected into the scalp every week or fortnight in doses of 1/10 to 1/6 grain, is sometimes beneficial. *Dore.* 358

Amenorrhea. TREATMENT. In amenorrhea, flooding, dysmenorrhea, etc., mammary extract treatment often proves corrective. *Berkeley.* 20

In amenorrhea, relative or absolute, ovarian extract considered best remedy by author. *Bandler.* 91

Anemia. TREATMENT. Joint administration of ovarian extract with iron and arsenic in anemias, including chlorosis, in females, recommended. *Bandler.* 91

Angina Pectoris. TREATMENT. Concussion at level of seventh cervical vertebræ, together with hypodermic injection of 1/10 grain (0.006 Gm.) of pilocarpine, to increase vagus tone, gives relief more promptly than does morphine. *Jarvis.* 160

Ankylostomiasis. TREATMENT. Betanaphthol in 30-grain (2 Gm.) doses given the first thing every morning is likely to prove more effectual than eucalyptus or thymol. Starvation of patient during such treatment is unnecessary; in bad cases it may be harmful. *Keith.* 165

Arthritis, Chronic. TREATMENT. Injections of phenol-camphor used with benefit. Must be made only into joint, never into spongy bone. Formula: Phenol, 30; camphor, 10; alcohol, 30. Only 0.5 or 0.25 c.c. is injected at one point, except in streptococcic processes, where 2 c.c. are necessary. *Pohl.* 235

Arthritis Deformans. TREATMENT. Gradual but permanent improvement noted in a number of cases after administration of thymus extract. Pain and swelling disappear and appetite returns. Nucleoproteid extract much preferable to crude gland. Treatment should cover several months, and small doses be continued for some time after apparent cure. *Berkeley.* 20

Bronchitis, Acute. TREATMENT. Inhalations of recently prepared tincture of iodine from wide-mouthed bottles found to cure bronchial catarrhs in four days. Inspirations —from 4 to 8 or more at each sitting—to be more or less deep according to severity of case. Inhalations to be repeated 5 or 7 times a day. If much mucus, expectoration to be assisted by usual remedies. In children iodine tincture may be dropped on pieces of cotton to be laid on pillow (over oilcloth) while patient sleeping. *Torri.* 303

Bronchopneumonia. TREATMENT. Hot baths, followed by brief cold affusion, in acute bronchitis, bronchiolitis, and bronchopneumonia in young children reduce fever, stimulate expectoration, deepen breathing, exert soporific effect, improve appetite, stimulate elimination through skin, and seem to act specifically in shortening disease. Bath water is at 41° C. (105.8° F.), hot water being added as cooling occurs. Patient is bathed every three hours, up to 5 times a day. Baths particularly appropriate for feeble children who became chilled at periphery with internal temperature high. The weaker the child and higher the fever, the more frequently baths are given. Where the

temperature not above 39° C. (102.2° F.), ten-minute bath is given 3 times a day. Hot bath is not contraindicated where temperature exceeds 40° C. (104° F.) in infants or very young children, though for older children warm baths may be substituted. At conclusion of each bath nurse elevates child from hot water so back of neck is exposed, and cold water is dashed once over neck, causing reflex gasp for breath. Child is next reimmersed momentarily in hot water and cold water poured on chest, after which he is dried, wrapped in warmed clothes, and placed in warmed bed. Baths to be continued once daily into convalescence if patient coughs. *Arneth.* Page 55

Burns. TREATMENT. (1) Hypodermic injection of morphine and atropine. (2) Immerse burned area in, or cover with light cloth moistened with, cold water to which has been added 1 teaspoonful of sodium bicarbonate or chloride per quart; continue until morphine effect manifest. (3) Spray or mop burn and surrounding surface with hydrogen dioxide, mop with dry gauze, apply gauze strips dipped in 2 per cent. picric acid solution in dilute alcohol, and cover with thin layer of cotton and adhesive strips or bandage. Allow dressing to remain till soiled, then reapply. (4) About third day, open blisters and mop away contents. (5) Where sloughing: Remove dead tissue as it loosens, cleanse surface with dioxide, dry, mop with picric solution, put on strips of rubber tissue previously kept in 1:1000 mercury bichloride solution, and cover with picric acid compress and cotton. *Plain.* 299

Cancer. DIAGNOSIS. Marked diminution of the area of cardiac dullness in the recumbent posture, as determined by percussion, found in 87 per cent. of 111 cancerous cases and only 16 per cent. of 107 noncancerous cases. This sign may be present in cancerous cases that show no wasting. When the sign is present, diagnosis of carcinoma should be rejected only after careful consideration. In some cases the sign has appeared early enough to enable successful resection to be carried out. *Gordon.* 234

Cancer, Gastric. DIAGNOSIS. Positive or negative diagnosis made by serial röntgenography in 616 cases. Of 97 cases operated on, diagnosis found absolutely correct in 94. Gastric cancer at any stage, or indurated gastric ulcer, can be detected by this method as accurately as renal calculi or bone fractures. *Cole.* 301

Cellulitis. TREATMENT. Packing infected arm from fingers to shoulders in hot mixture of saturated magnesium sulphate solution and glycerin in equal parts found to control infection promptly. *Freese.* 304

Colles's Fracture. TREATMENT. In reduction soon after the accident, without anesthesia, the most satisfactory method is a sudden, sharp jerk of the wrist administered by clasping one's fingers under the upper fragment, making pressure with the thumbs on the dorsum of the lower fragment, and abruptly pronating the hands. *Allen.* 419

Constipation. TREATMENT. Constipation and rectal irritation in neurasthenics greatly benefited by the perineal and anal douche, hot as can be borne, followed by cold douche at 60° to 50° F.; stronger revulsive effects are obtainable with an alternate hot and cold application. *Pope.* 50

Corneal Ulcer. TREATMENT. Bathing part with 1 per cent. ethyl hydrocupreine solution for one-half minute every hour, six hours first day and twelve on next, found rapidly effectual in a case of ulcus serpens with hypopyon from chronic dacryocystitis. Sac expressed and conjunctiva cleansed with boric acid before each treatment with ethyl hydrocupreine, which was dropped on the ulcer. Practically specific against pneumococcic infections. *Wiener.* 168

Delirium Tremens. TREATMENT. (1) Withdraw cerebrospinal fluid by lumbar puncture in amounts as large as possible—50 to 60 c.c. (2) Inject with syringe an equal amount of sterile 1 per cent. sodium bromide solution. Immediate improvement in delirium usually occurs, followed by temporary return and then permanent disappearance of delirium. Relapse occasionally after a few days; usually controlled by repetition of injection. *Kramer.* 110

Dengue. TREATMENT. Three out of 7 cases were rapidly improved by administration of 30 drops of a 1:1000 solution of epinephrin by the mouth. Epinephrin is likely to prove useful in shortening convalescence in this disease and in mitigating the grave cases. *Khoury.* 329

Diabetes Insipidus. TREATMENT. Case in which injections of pituitrin caused marked, though but temporary, improvement. *Farini.* 277

Diabetes Mellitus. DIAGNOSIS. Frommer's test recommended for detection of small amounts of acetone. Treat about 10 c.c. of urine with 1 Gm. of sodium hydroxide in substance and without waiting for it to dissolve; add 10 or 12 drops of a 10 per cent. solution of salicylaldehyde in absolute alcohol. Heat to 70° C. In the presence of acetone, marked purple-red color develops at zone of contact with alkali. This test indicates presence of 0.000001 Gm. of acetone. Urine must be diluted so that its specific gravity is about 1.01. *Muhlberg.* 232

TREATMENT. Therapeutic value of an "easy nitrogenous diet" pointed out, *i.e.*, of one consisting almost exclusively of milk and its derivatives, cereals, fruits, and vegetables. Such a diet partially takes off burden of nitrogenous metabolism from liver and tends to relieve its instability as regards glycogenic function, therefore often

causing glycosuria to disappear. *Cornwall.* Page 110

Dry vegetable diet recommended for cases in a state of acidosis. Patient to take daily 10 ounces (300 Gm.) of dried legumins (peas, beans, lentils), 5 ounces (150 Gm.) of butter, 3 to 6 eggs, and 3 to 6 aleuronat or gluten rolls. Green legumins may also be given. Soy beans may be used. This diet to be followed at least 3 days at a time. The starch it contains is better utilized than that of other foods, glycosuria often being not higher than under a diet poor in carbohydrates. The diet also combats nitrogenous loss; somnolence and anorexia, where present, often disappear, and diaceturia diminishes. *Labbé.* 300

Diphtheria. TREATMENT. Iodine ointment used locally in 30 cases. With 2 cotton pledgets secretions and false membrane were first removed and the surface dried, and a third pledget, smeared with the ointment, was then rubbed on the affected surface and surrounding area. This was done every 3 hours, or in severe cases every 2 hours, until improvement occurred. Many cases cleared up within a few hours, becoming free of false membrane on the second or third day. *Thomas.* 364

Dysentery, Amebic. TREATMENT. Use of quinine advised as an adjuvant to ipecac in resistant cases of this affection. Successful results were thus obtained in cases that failed to react favorably to emetine. *Brooke.* 417

Dysentery, Bacillary. TREATMENT. In acute form: (1) Rest and warm covering; (2) only small amounts of food at a time; (3) calomel at the outset; (4) acid drinks; (5) enemata of saline or soda solution or of methylene blue. In chronic form: (1) Rest; (2) enemata of 1:500 or 1:1000 silver nitrate, 0.25 to 0.5 per cent. tannic acid, 1:500 or 1:1000 thymol, 1 to 2 per cent. resorcinol or creolin, or enemata of gum arabic mixed with bismuth subgallate or iodoform; (3) phenyl salicylate, tannigen, ichthyol, or calomel internally; (4) serum treatment, 10 c.c. in mild cases, 10 c.c. twice at six- to ten- hour interval in medium cases, and 40 to 60 c.c. in severe cases, not exceeding 20 c.c. at a time when serum used daily; (5) appendicostomy or cecostomy with irrigation in severe cases. *Bassler.* 111

Dysmenorrhea. TREATMENT. Cocaine applied to tuberculum septi in nose and anterior portion of inferior turbinate on both sides, followed by application of trichloracetic acid over these spots, in 93 cases. Four applications made between periods. Cases with premenstrual headache, nausea, and colic at onset of flow—but without organic pelvic lesions—completely relieved. Of 81 cases sending subsequent reports, 48 had been cured and 14 improved. *Mayer.* 167

Atropine found very useful, except in cases with high blood-pressure, when pressure must be reduced and cause sought and removed. *Stolper.* 235

Eclampsia, Puerperal. TREATMENT. Report of 2 cases in which pituitary extract injections—2 in each patient—yielded successful results, labor being brought on thereby. *Schlossberger.* 28

Eczema. TREATMENT. Both chronic and acute forms respond to thyroid treatment. Fat subjects and those with xerodermia respond best. *Morris.* 11

In mild acute cases paint on lesions an aqueous solution of picric acid several times daily; in more severe cases apply wet dressings of the acid, held by facial mask. Prompt and gratifying results. In subacute and chronic types cure hastened by beginning treatment with two or three days' application of picric acid solution. *Wilcox.* 176

Edema, Angioneurotic. TREATMENT. Pituitary and adrenal preparations found useful. *Morris.* 11

Epilepsy. TREATMENT. Four patients with severe essential epilepsy treated with subcutaneous injections of cerebrospinal fluid, taken for each from another epileptic. Considerable benefit. Dose of fluid injected, 3 to 5 c.c. biweekly or weekly. Improvement striking both as to severity and frequency of attacks. In some, petit mal took place of grand mal. Greatest improvement noticed especially if injected fluid was taken from other patients during recurrent attacks, no matter how slight the latter. *Gordon.* 235

Epistaxis. TREATMENT. Subcutaneous injection of 8 minims (0.5 c.c.) of pituitrin brought early relief in 5 cases. *Citelli.* 279

Epithelioma. TREATMENT. Concentrated sunlight, focused on growth with ordinary magnifying glass, found effectual. Useful where X-rays and radium not available. Invariably successful in obstinate recurrent ulcerative patches on face or nose. Focus sunlight on sore for ten or fifteen minutes at a sitting. If scab present, concentrate rays till burning is felt, then lengthen focus to cover wider area. Induce burning again every few minutes. Treat every day or two till scab easily removed, then apply a little cocaine and after three or four minutes apply rays so as almost to cauterize base of ulcer. Alternate with milder applications for fifteen minutes. Under milder treatments thereafter, at longer intervals, cure usually complete in three to six weeks. *Seelye.* 166

Erysipelas. TREATMENT. In severe erysipelas a single small vaccine inoculation,—5 million,—preferably of autogenous vaccine, will usually cause a critical fall of temperature, and a second or third dose at about five days' intervals generally completes resolution. *Whitfield.* 56

In facial erysipelas: Have beside bed bowl of boric acid solution in which ice is placed. Keeping cloths frequently moistened with the solution continuously on face effectually re-

lieves pain and burning. Where leg or arm involved: Wet dressings of boric acid or aluminum acetate. In migratory cases: Ichthyol may be applied or surfaces painted with picric acid solution. *Erdman.* Page 112

Pyramidon used in 20 cases with uniformly favorable results: Diaphoresis, antipyresis, sedation, fading of eruption, which ceases to spread, and improved general condition. Diuretic beverages also given. Locally, following ointment used: Phenolis, camphoræ pulveris, ana gr. xv (1 Gm.); adipis lanæ hydrosi, petrolati, ana ℥ss (15 Gm.). *Satre.* 167

Discomfort and pain more rapidly relieved by picric acid solution than other agents, and edema disappears promptly. *Wilcox.* 176

Two facial cases treated by local applications of hepatic lipoid, rapid recovery following. *Tilmant.* 416

Erythema. TREATMENT. Epinephrin used in 3 cases of erythematous taches of the face ("red nose"). A 1:1000 solution was given internally in 5-minim (0.3 c.c.) doses in water 3 times daily half an hour before food, and the treatment continued during five to six months (with short intervals). The erythema almost entirely disappeared, and a year and a half after treatment it had not reappeared. No bad effect on the heart or blood-pressure was observed. *Rothmann.* 348

Felon. TREATMENT. Mixture of saturated magnesium sulphate solution and glycerin in equal parts found to control infection in an unusually short time. *Freese.* 304

Fracture of External Malleolus. TREATMENT. Case of oblique fracture of fibula, involving malleolus, in which, great pain continuing after splinting, the malleolus was exposed by rectangular incision and, after detachment of external lateral ligament, entirely removed. The foot was splinted at a right angle to the leg. Pain ceased, and on the twelfth day the patient could stand on the foot without discomfort. Similar treatment recommended for all detached external malleoli. *Bland-Sutton.* 360

Fracture of Femoral Neck. TREATMENT. In adults the author recommends the addition of a side pull to the Buck extension. The side pull is exerted on the upper end of the thigh by means of a weight and pulley, the latter being placed opposite the crest of the ilium. It can be attached to the wall, a standard, or the side of the bed, and should be so adjusted that the pull is upward and outward at an angle of 45 degrees. The amount of weight at the foot of the bed should be sufficient to overcome the shortening, and the side weight about one-third of the foot weight. A well-padded splint of surgeon's felt, or sole leather, should be applied to the inner and under sides of the thigh, coming well up to the perineum, and fastened to the thigh by adhesive plaster encircling the limb. A band made of several layers of gauze or cheesecloth is convenient for the side pull. It should be fastened to the splint by adhesive plaster. By shortening the lower arm of this gauze the limb can be rotated inward, thus avoiding eversion. *Moore.* 361

Fracture, Ununited. TREATMENT. Osmic acid, 0.02 Gm. in 1 per cent. solution, injected directly into focus in a case of ununited fracture of fibia and fibula, rebellious for six months. Injection repeated 3 times in two weeks. Patient discharged two weeks later. Stimulating action of the acid on periosteum and marrow confirmed in rabbit experiments. *Segrè.* 307

Fractures about the Elbow. TREATMENT. These cases should be started on an internal right angular splint. At the second or third dressing, while the fragments are still plastic and when the swelling has subsided, the wrist should be slung from the neck, obtaining the most acute flexion possible without too much pain. The flexion is increased at subsequent dressings for two or three weeks, when it is decreased again until all dressings are abandoned at the end of four or five weeks. *Allen.* 419

Furunculosis. TREATMENT. Where boil already soft: (1) Paint tincture of iodine freely over and around it; if several lesions close together, paint over entire area. (2) Place gauze pad with 10 per cent. ichthyol in petrolatum over the area, cover with a little cotton, and hold with bandage. (3) Next day, remove pus, wipe with benzine, and reapply iodine and ichthyol. (4) When pus entirely absorbed, discontinue iodine, but apply pure ichthyol. (5) To activate epithelial growth where necessary: Argenti nitratis, gr. xv (1 Gm.); balsami peruviani, gr. lxxv (5 Gm.); adipis lanæ hydrosi, ℥iiiss (100 Gm.).—For a furuncle not yet softened: (1) Apply iodine. (2) Thick coating of ichthyol, to be allowed to dry on or covered with a little absorbent cotton and gummed adhesive. (3) Next day, wipe off ichthyol with warm water or if possible wash area with soap and water, and reapply iodine and pure ichthyol. (4) Stop iodine on third or fourth day, continuing ichthyol till all inflammation subsided. Single layer of gauze, tissue, or cigarette paper may be applied when ichthyol has dried. *Berger.* 113

Gastric Atony, Acute. TREATMENT. Continuous lavage of stomach through nose recommended. Cocainize nose and work soft oiled tube with 8 to 11 mm. lumen down into stomach. Attach longer tube and carry to receptacle. Amounts up to 5 liters thus drain away. Keep outlet of tube at level of bed to prevent aspiration of mucous membrane. *Grosser.* 305

Gastroenteritis, Infantile. TREATMENT. *B. lactis bulgaricus* in tablet form administered in 55 cases, varying in severity from moderate degrees of infection—6 stools a

day—to the most grave—20 or more. From 3 to 10 tablets a day were given to each infant, according to the gravity of the illness. Results: 43 gained in weight; 2 lost; 3 gained and later lost, and 7 showed no change. There were no deaths. The temperature came down to normal within one to three days, and in two or three days the stools became yellowish or brown, well formed, and free from curds, mucus, and blood. *Schwartz.* Page 364

General Paralysis. TREATMENT. Remissions may be prolonged by suitable doses of tuberculin (1/1000 to 1/5000 mg. of tuberculin residue). *Jackson.* 236

Glaucoma. TREATMENT. In non-inflammatory glaucoma, when operation is consented to, Elliot's sclerocorneal trephining is by far the safest procedure and the most productive of results. In 29 cases thus treated there were no serious complications at operation in any case. Seven eyes with absolute glaucoma were preserved that formerly would have been removed. In 7 other eyes which were sightly a small degree of vision was gained by the operation. In the remaining 15 the eyes gained considerably in vision and usefulness. *Reber.* 362

Goiter. TREATMENT. Vaccines prepared from coliform bacilli of patient's own bowel administered in 8 cases of parenchymatous goiter, with disappearance of enlargement in one and diminution in the others. Initial dose usually 125 million, later increased, upon diminution of size of goiter, by 25 or 30 million weekly. Injections given weekly. *Langmead.* 23

Salicylates, creosote carbonate, menthol, thymol, etc., are helpful after the intestinal functions have been regulated. In nodular, cystic, colloid, fibrous, and intrathoracic goiters, iodine is seldom of value and sometimes dangerous. *Sajous.* 1

Colloidal silicon injections used with benefit in a case of simple goiter. Trial of this measure is advised in both simple and exophthalmic goiter before operation is resorted to. *Suard.* 345

Goiter, Exophthalmic. TREATMENT. Ligation of thyroid vessels and sometimes a portion of the gland is indicated (1) in patients with mild symptoms of hyperthyroidism; (2) in the large group having acute, severe exophthalmic goiters, and the chronic, very sick patients who, having exhausted all forms of treatment, are suffering from various secondary symptoms, and (3) in cases with marked pulsation and thrill of thyroid arteries associated with cardiac dilatation and loss of weight. Thyroidectomy later advisable, to prevent relapse to former condition. Should trouble recur before a partial thyroidectomy is made, or a severe relapse after partial extirpation, inferior thyroid artery should be ligated and half of remaining lobe removed when improvement occurs. *Mayo.* 16

In early and mild cases in virgins, author begins treatment with corpus luteum, which is useful as antidote to thyroid intoxication. *Berkeley.* 20

Report of cases improved by administration, for several months, of 20 to 30 Gm. (5 to 8 drams) of quinine divided among twenty days in each month. *Gaultier.* 90

Next to operative treatment, where indicated, repose is important. The patients should be gotten out of their ordinary environment. A trip to an altitude of about 3600 feet often acts favorably, starting first at 1500 feet. The patient should be well nourished, on a carbohydrate-fat mixed diet. Galvanic stimulation of the neck is often useful; the anode being on the sternum and the cathode behind the angle of the jaw, a current of 1 or 2 milliampères should be slowly turned on for one to three minutes and then slowly turned off. *Bauer.* 411

Gonorrhea. TREATMENT. Iodine treatment gave excellent results in gonorrhea in the female: (1) Swab external genitals with a 3.5 per cent. solution of iodine in alcohol; (2) force a few drops of same solution in orifices of Skene's and vulvovaginal glands through blunt hypodermic needle; (3) with patient in Sims's position, insert Sims's speculum, swab vagina dry with cotton, and paint cervix with iodine solution; (4) swab posterior vaginal *cul-de-sac* and wall; (5) introduce narrow strip of gauze high up against posterior wall, and remove speculum; (6) give hexamethylenamine, 5 to 7½ grains (0.3 to 0.5 Gm.) four times daily in plenty of water. Where cervix and uterus chronically involved: (1) Paint cervix with iodine; (2) grasp anterior lip with volsellum and remove any stringy discharge; (3) insert small uterine sound if required; (4) introduce intrauterine syringe to fundus and instill 1 dram (4 c.c.) of iodine solution while withdrawing; (5) treat vagina as in acute cases. Repeat applications every third day in both acute and chronic forms. In all cases order hot douches of 4 to 6 quarts (liters) of hot saline two to four times daily, always followed by a 1-quart (liter) injection of 1:5000 permanganate or 1:250 picric acid. *Hofmann.* 48

Gonorrheal Vaginitis of Children. TREATMENT. Mixed autogenous vaccines of gonococcus and usually staphylococcus, streptococcus, diplococcus, colon bacillus, etc., used in 40 cases with uniformly good results. Average number of injections required for cure, 7. Initial dose, 25 to 50 million, then gradually increased. Interval between injections not less than five nor more than seven days. If after six weeks case still needs treatment, as shown by examination of discharges, a second vaccine should be made. *Wolff.* 49

Headache. TREATMENT. In headache or head pressure in nervous fatigue a fomentation applied for five or ten minutes twice, and

followed by a cold compress, is effective. If headache is congestive, use hot foot bath, followed by ice-bag to nape of neck and cold compress to forehead. Sitz baths at 90° F., or cold foot baths, often relieve. *Pope.* Page 50

Hemoptysis. TREATMENT. Subcutaneous injection of 8 minims (0.5 c.c.) of pituitrin nearly always brings relief in average cases. Where first injection fails, give a second, and later if necessary a third, the latter intramuscularly. *Citelli.* 279

Intravenous injections of 0.5 c.c. of pituitrin were followed almost at once by cessation of hemorrhage in 10 out of 12 cases. Where the hemorrhage recurred on succeeding days, the same prompt relief was obtained. *Rist.* 411

Hemorrhage, Cerebral. TREATMENT. Venesection used with good results and recommended in cases of apoplexy in full-blooded patients with blood-pressure of 200 mm. or more. Amount of blood let in author's cases, 12 to 48 ounces. Where vein at elbow not easily found in stout persons, there are usually varicose veins in legs which can be opened. *MacFarlane.* 121

Hernia. TREATMENT. Inversion of hernia recommended in patients who take anesthetic poorly and maintain strong expiratory efforts, forcing viscera into sac under pressure. Primary union and cure of hernia in each of author's 7 cases thus dealt with. *Haynes.* 170

Herpes Labialis. TREATMENT. Picric acid solution causes rapid drying of lesion and tends to prevent extension. *Wilcox.* 176

Hodgkin's Disease. TREATMENT. Benzene, 5 minims (0.3 c.c.) three times daily at first, then increased to 10 minims (0.6 c.c.), caused marked regression of enlarged nodes, beginning two weeks after treatment begun, in a case previously treated unsuccessfully with X-rays. The 10-minim dose was continued for six weeks. *Lawson and Thomas.* 173

Hyperchlorhydria. TREATMENT. Cream diet considered useful. (See Ulcer, Gastric.) *Nichols.* 169

Following measures recommended: (1) Magnesium oxide, combined with sodium sulphate and belladonna in small amount. (2) All food to be well cooked and most carefully minced. (3) Patient to take 2 or 3 meals at two-hour intervals in forenoon, but nothing after lunch until 7 P.M., when only porridge to be taken. (4) Fluid intake to be generally diminished and restricted to hours when stomach not filled with food. (5) In severe cases, or where gastroptosis: Rest in bed for two or three weeks. (6) Hot compresses twice daily for two hours; cold compresses at night. (7) If hyperacidity arises on basis of a catarrh: Rinse empty stomach in morning with 1 : 1000 salicylic acid or 1 : 500 silver nitrate solution. (8) Bowels to be carefully regulated. *Schmidt.* 302

Hyperthyroidism. TREATMENT. Injection into enlarged thyroid of 1 to 4 per cent. solutions of quinine and urea hydrochloride caused marked improvement in 3 cases. *Watson.* 265

Ileus. TREATMENT. Continuous lavage of stomach through nose recommended in duodenojejunal occlusion, postoperative bowel paralysis, ileus from adhesions, spasmodic contraction from peritonitic reflexes, and vicious circle after gastroenterostomy. (See Gastric Atony, Acute.) *Grosser.* 305

Impetigo. TREATMENT. In exceptional cases which do not yield to local measures, a few staphylococcic vaccine inoculations—usually, in fact, a single one—will cause prompt cure. *Whitfield.* 56

Infections, Local. TREATMENT. Following summary of serviceable measures present: *A.* Inflammations with slight serum exudation, but with redness, heat, swelling, pain, and loss of function: 1. Rest. 2. Elevation. 3. Hot, wet dressing.—*B.* Where much serum exudation, but slight tendency to necrosis: 1. Incision. 2. Place gauze in wound saturated with Chlumsky's solution. (Camphor, 60 parts; phenol, 30; alcohol, 10.) 3. Wet dressing; keep wet. 4. Remove gauze in twenty-four hours. 5. Insert rubber drain. 6. Apply wet dressing.—*C.* Where marked necrosis: 1. Incision. 2. Drainage. 3. Wet dressing. 4. After inflammation receded, Durante's solution. (Iodine, 1 part; potassium iodide, 10; guaiacol, 5; glycerin, to make 100.) 5. Dry dressing. *Hoag.* 307

Insanity. TREATMENT. Recovery in manic-depressive insanity may be hastened by stimulation of leucocytosis by injection of 1 c.c. of terebene subcutaneously in the flank. *Jackson.* 236

Insomnia. TREATMENT. In nervous fatigue (neurasthenia) this symptom is best met by cold pack or dripping-sheet at bedtime, or by the trunk compress, consisting of a coarse linen bandage wrung out of water at 65° F. and covered by several layers of same material to exclude air; it should be worn all night. Excellent also is the neutral bath at 94° to 96° F. for from twenty to sixty minutes. *Pope.* 50

Intertrigo. TREATMENT. Paint picric acid solution on surfaces and separate them with thin layers of absorbent cotton. In the more severely infected cases wet dressings of picric acid. Prompt results. *Wilcox.* 176

Intestinal Motor Inactivity. TREATMENT. Pituitary extract recommended. Injection of 3 c.c. in adults causes evacuation in 88 per cent. of cases in from six to twenty minutes. Usually constipation later recurs, but often a single injection will induce several stools on same day and keep bowels regular for a day or two after. The extract is valua-

ble for prophylaxis and cure of postoperative intestinal paresis. Continued, it tones up intestine and also stimulates stomach motility. For lasting effect, inject ½ c.c. intramuscularly every day for a week, then 1 c.c. every three days for another week, and thereafter 1½ c.c. once weekly. *Houssay and Beruti.* Page 27

Intestinal Stasis, Postoperative. PROPHYLAXIS. Harmful effects of abrasion of visceral peritoneum in operations can be overcome by introducing 6 ounces (180 c.c.) of sterilized mineral oil in abdomen and sponging it over coils of intestine. *Burrows.* 52

Iodine Poisoning. TREATMENT. Calcium lactate internally found useful in 2 cases of iodine poisoning from a course of potassium iodide. *Vonden Velden.* 418

Lumbago. TREATMENT. Salicyl compounds or a 10- or 20- grain (0.6 or 1.2 Gm.) dose of quinine at onset of condition useful. Rochelle salts, ½ to 1 dram (2 to 4 Gm.) every hour or two until urine alkaline and bowels freely moved, also valuable. "Walking the lumbago off" may succeed if free perspiration accompanies the exercise. Turkish bath in early stage safer and more effective. Later: Rest, dry cups locally, deep massage, faradic current, and, if salicylates fail, iodine, in vegetable protein combination. *Henry.* 175

Lupus Erythematosus. TREATMENT. Benefit followed use of adrenal substance in this condition. *Morris.* 11

Lupus Vulgaris. TREATMENT. Where Finsen light not available, old tuberculin is capable of great service. Begin cautiously; then make steep rise in dose as soon as one dose ceases to call forth reaction. *Whitfield.* 56

Gold and potassium cyanide injected intravenously in 12 cases. Single dose, 0.01 to 0.05 Gm. Results good. Course of 12 to 14 injections followed by interval of two to three weeks, after which another treatment given. Even in severe cases, therapeutic results better than with tuberculin and other measures. *Poór.* 236

Mammary Abscess. PROPHYLAXIS. Threatened mammary abscess underwent absorption in 2 or 3 cases soon after administration of pituitary extract. *White.* 283

Myasthenia Gravis. TREATMENT. Pituitary extract, combined with ovarian, found useful in 2 cases. *Lagane.* 85

Obesity. TREATMENT. Colloidal hydroxide of palladium, suspended in olive oil and liquid paraffin in proportion of 25 mg. of palladium to 1 c.c., caused marked loss of weight, without untoward action except some local irritation, in 2 cases of obesity. Dose, 2 c.c. of suspension, injected under skin of abdomen. *Kauffmann.* 116

Osteomalacia. TREATMENT. Case in which excellent results obtained from epinephrin, injected in doses of 8 minims (0.5 c.c.) of 1 : 1000 solution, daily, in 2 series of 9 injections each. Patient finally discharged cured. *V. Salis.* 278

Ozena. TREATMENT. Use of sugar recommended. For first week or two surgeon should carry out treatment himself, and precede sugar by removal of crusts from nose, softening them if necessary with hydrogen dioxide or sodium bicarbonate solution. Patient to use nasal syringe once daily. After crust removal, massage mucosa with cotton-tipped probe; then nostrils may be packed with ribbon gauze soaked in simple syrup, to be removed in twelve hours. Repeat this treatment on alternate days. After a fortnight patient can insufflate powdered sugar himself. *Harry.* 175

Paralysis Agitans. TREATMENT. Good results from administration of thyroid and parathyroid preparations with calcium chloride. *Gauthier.* 86

Pericarditis, Adhesive. DIAGNOSIS. Retraction of the chest wall circumscribed along the left costal arch between the parasternal and anterior axillary lines, and with pulsation, is pathognomonic. To examine for retraction one should lay one hand on the lower part of the sternum and the other on the spine opposite; the patient then taking a deep breath, the chest is felt to grow narrower and a distinct systolic retraction perceived. Preference of edema for the upper part of the body, as well as the paradoxic engorgement of the neck veins during inspiration, are also characteristic. *Tornai.* 424

Perinephric Abscess. DIAGNOSIS. Pain referred to lower limb of same side found of considerable diagnostic value. There are both pain and tenderness, particularly marked along external cutaneous nerve just below anterior superior spine and on external aspect of thigh. *Belikov-Chtomitch.* 117

Phlebitis, Chronic. TREATMENT. Local alternate hot and cold submersions and spray advised. Two tubs or pails are used, one containing cold water and the other water at 110° F. The affected limb is first submerged in the hot water for thirty seconds, then in the cold for fifteen seconds. This alternation is gone through 10 times, ending with the cold-water submersion. The part is then gently rubbed until the skin is dry and red, showing proper reaction. Gentle stroke massage in the direction of the venous flow is then to be carried out for ten minutes, the skin dusted with talcum powder, and an elastic support applied. The spray method (spraying with sponges of hot and cold water or a nozzle-spray attachment), applied for the same length of time, is useful to treat the upper parts that cannot be submerged. *Foster.* 424

Placenta Previa. TREATMENT. In marginal variety, inject 30 minims (2 c.c.) of

pituglandol and at once rupture membranes. In central variety, according to extent of dilatation, perform version or introduce metreurynter and give pituglandol. Metreurynter generally expelled spontaneously in one-half hour. Then perform version and give second dose of pituglandol. *Gall.* Page 280

Pleurisy. TREATMENT. Autoserotherapy recommended in all cases of serofibrinous pleurisy in which pyemic infection is absent. A positive cure may be expected in over 80 per cent. of cases. In large effusions causing severe dyspnea and pain one should aspirate 10 to 200 c.c. of fluid and, before withdrawing the needle entirely, reinject 2 to 3 c.c. under the skin. Immediate relief from symptoms and a more rapid absorption of the exudate will follow. The injections should be repeated every other day until decided improvement takes place. *Pfender.* 417

Use of calcium lactate internally in pleurisy is indicated only when the effusion constantly recurs after puncture. *Von den Velden.* 418

Pneumonia. TREATMENT. Ethyl hydrocupreine hydrochloride given internally in pneumococcic lung inflammation, with good results. Dose usually 0.5 Gm. (7½ grains) *t. i. d.*, daily amount not exceeding 1.5 Gm. (23 grains). In 9 cases no other medication was employed: in all of these temperature fell more rapidly, by crisis or lysis, than with other methods. No untoward after-effects. *Vctlesen.* 118

Vaccine treatment advised. First give polyvalent stock vaccine of pneumococcus and streptococcus, of each, 30 million, as soon as possible. Make sputum smears and cultures, blood-cultures in early cases, lung puncture in late ones, and prepare autogenous vaccine. If no definite response in twenty-four to forty-eight hours, repeat or preferably give autogenous vaccine. If still no response in thirty-six or forty-eight hours, double the dose. If there is response, as shown by improved clinical symptoms and signs, increased well-being, etc., defer reinoculation three days, or until the first symptoms of retrogression in general condition or physical signs occur. Maintain the dosage or increase it every two or three days until the patient entirely well. Generally about three doses are necessary. Average mortality with vaccine treatment only 5 to 10 per cent. Convalescence shortened and danger of complications lessened. In severe cases also give 20 to 30 grains of sodium citrate every two or three hours. *Craig.* 238

Epinephrin, 8 minims (0.5 c.c.) of 1:1000 solution in 1 pint (500 c.c.) of saline solution subcutaneously, caused prompt improvement in a desperate case. *Lonhard.* 281

Camphor-injection treatment recommended. A 30 per cent. preparation of camphor in oil of sesame, sterilized in a boiling water bath, should be used. As soon after the initial chill as possible, 2½ fluidrams (10 c.c.) of the preparation per 100 pounds of body weight should be injected hypodermically every twelve hours except in bilateral pneumonia and in severe toxemia, when injections should be made every six to eight hours. The site of injection should be the outer thigh or abdomen. The injection should be made slowly and the oil gradually deposited below the subcutaneous fatty tissue and not into it. *Cruikshank.* 426

Poliomyelitis, Acute. DIAGNOSIS. Preparalytic symptom: A peculiar, twitching, tremulous, or convulsive movement of certain groups of muscles, lasting from a few seconds to somewhat less than a minute. Usually affects part or whole of one or more limbs, face, or jaw, but sometimes whole body. Duration of spells short at first. Often accompanied by a cry similar to hydrocephalic, or by brief period of unconsciousness. *Colliver.* 177

Psoriasis. TREATMENT. Thyroid preparations found especially efficacious in psoriasis associated with adiposity. They should not be exhibited until eruption is fully developed. *Morris.* 11

Low nitrogen diet found to have very favorable influence upon psoriasis eruption, especially when extensive. Severe cases improve under such a diet almost to the point of disappearance of the eruption. *Schamberg, Kolmer, Ringer, and Raiziss.* 178

Application of picric acid solution brings immediate and constant relief from itching. *Wilcox.* 176

Puerperal Fever. PROPHYLAXIS. Whenever irrigation of vagina with boiled water through speculum yields a yellowish fluid, one should irrigate once daily for at least ten days with a 1:200 solution of lactic acid. Morbidity thereby reduced from 28.6 to 7.6 per cent. Full baths to be avoided before delivery. *Zweifel.* 54

TREATMENT. Intravenous injections of distilled water given in 142 cases of puerperal fever. Of 62 patients with pyemia and septicemia, 42 were cured. In an hour or hour and a half after an injection there is usually a chill, with rise in temperature. By evening or the following morning temperature will have fallen to normal, sweating usually accompanying the drop. *Ilkewitsch.* 53

Puerperal Sepsis. TREATMENT. Fixation abscess recommended in this and other severe infectious states, including pneumonia, appendicitis, typhoid fever, etc., whenever condition seems to be taking a turn for the worse. Inject 2 c.c. of pure oil of turpentine under gluteal skin. When abscess forms, evacuate through small incision (do not drain) and apply Bier cups twice daily. Excellent results in 18 cases. *De Lostalot.* 168

Pyloric Spasm. TREATMENT. Atropine in a certain proportion of cases brings relief.

The author found that epinephrin hypodermically procures complete and lasting relief in most instances. In 2 cases the palpable pyloric tumor could be felt to melt away under its influence. Prolonged gastric lavage, using water at 105° F., also has a happy effect in relieving spasmodic stomach conditions. *Stockton.* Page 367

Pyorrhea Alveolaris. TREATMENT. Sensitized vaccine against streptococcus, staphylococcus, pneumococcus, and bacillus of Friedländer used in a number of cases. After 2 injections, mechanical and dental treatment added. After 4 or 5 injections, teeth clean and firm, and organisms gone. Three or four supplementary injections given. No recurrence in six months. *Bertrand and Valadier.* 304

Rabies. TREATMENT. Potassium iodide in 2 per cent. solution, 1 tablespoonful or dessertspoonful at frequent intervals throughout course of preventive injections, recommended as adjuvant in treatment. In 3 cases of abortive rabies symptoms promptly disappeared after use of potassium iodide. Advocated especially in cases where infection has existed in latent condition for some time. *Koch.* 55

Rachitis. TREATMENT. Pituitary extract given to 16 young children with rickets, and effects compared with controls. After a few weeks of pituitary, the children were able to stand and began to walk; fontanelles began to close and growth of teeth was considerably accelerated. Osseous tenderness gradually diminished, weight was gained, and musculature became firmer. *Weiss.* 218

Retention of Urine, Postoperative. TREATMENT. Pituitary extract injected intramuscularly in 21 puerperal and 24 postoperative cases with excellent results. *Ebeler.* 91

Rheumatism, Acute. TREATMENT. Intravenous use of sodium salicylate resorted to in 12 cases, 130 injections in arm veins being given in all. A very fine, sharp needle should be used. The solution is made by dissolving 10 Gm. of C. P. crystalline sodium salicylate in 50 c.c. of distilled water freshly sterilized by boiling. Each cubic centimeter contains 3 grains (0.2 Gm.) of the salicylate. Usually the dose was 15 or 20 grains (1 or 1.25 Gm.) and injections were given at twelve- or eight- hour intervals over a period of three to six days. Occasionally, in robust men, 30 grains (2 Gm.) were given, and as much as 120 grains (8 Gm.) in the first twenty-four hours, without unpleasant effects. Relief of pain was prompter and more pronounced than from oral administration. The method is indicated in patients unable to retain the drug by mouth; those who show little or no response to the usual method; to start the treatment with a few intravenous injections where pain is intense, and in cases with threatening heart complications, or in severe rheumatic affections of the eye. *Conner.* 428

Ringworm. TREATMENT. Body ringworm more easily controlled by painting on picric acid solution than by usual antiseptic ointment. *Wilcox.* 176

Wash part with a strong solution of sodium bicarbonate, swab with a mixture of 1 part of ether to 2 parts of alcohol, dry, paint with a 2.5 per cent. tincture of iodine, and apply immediately an ethyl chloride spray until the skin gets china white. In twenty-four to forty-eight hours the patch of ringworm will have become quiescent. Next tiny spots should be looked for and similarly treated. In ringworm of the scalp 3 or 4 applications of iodine and spray are required, but on the face or smooth surfaces 1 application suffices. *Foley.* 429

Scarlet Fever. TREATMENT. Iodine ointment used locally in 19 cases (see Diphtheria). These cases were unusually free from local complications. *Thomas.* 364

Sciatica. TREATMENT. Eight cases treated by injections of 4 per cent. quinine and urea hydrochloride in salt solution into subcutaneous tissue over course of nerve. Fifty injections in all, without untoward results. Always decided relief after first injection and no further attack after third. Injections daily for 4 doses, then every other day until patient entirely relieved. Two cases of facial neuralgia also treated, with complete relief after second injection. *Cables.* 119

Scorbutus. TREATMENT. Calcium lactate, 45 grains (3 Gm.) a day, found a valuable measure. *Von den Velden.* 418

Skin-grafting. Following method of dressing skin-grafts just after their application described: Strips of gauze, 6 to 8 layers in thickness, are thoroughly impregnated and buttered with sterile 33⅓ per cent. bismuth paste (Beck's paste). These are laid over the grafts smoothly for 2 or more inches beyond the wound. No wrinkles or folds should remain. Over these is placed a layer of absorbent cotton, and the whole held firmly by a roller bandage. The first dressing should be done on the fifth day, great care being exercised in the removal of the primary dressing. A similar dressing is reapplied and subsequent dressings done every third or fourth day as required. At about the fifth dressing one can peel from each graft a thin film of dead cuticle, leaving a firm, pink, healthy graft in position. *Coerr.* 358

Spasmophilia in Children. TREATMENT. Combined treatment with phosphorized cod-liver oil and milk curds from which the whey had been removed by washing with water (thus removing all mineral salts) was employed in 12 cases. A cure was obtained in 9 cases within a week, twice at the end of the second, and once in the fourth week.

There was loss of weight, but this was soon made up on return to full milk diet. *Bernheim-Karrer.* Page 368

Syphilis. DIAGNOSIS. Luetin test valuable as diagnostic measure in tertiary and latent stages of syphilis, indicating a state of hypersensitiveness to spirochetal proteins induced by a period of cessation of introduction of these proteins previous to the test. Provocative injection of salvarsan, followed by both Wassermann and luetin tests, suggested to ascertain whether treatment has been curative in a given case. *Foster.* 179

TREATMENT. Epinephrin, 15 to 20 drops of 1:1000 solution in a little water by mouth, advised ten to fifteen minutes before injection of neosalvarsan, to prevent "nitritoid" symptoms, arising in some patients from the latter, *e.g.,* facial congestion, tingling in throat, nausea, and vomiting. *Galliot.* 212

Tonsillitis, Ulcerative. TREATMENT. After thoroughly washing surfaces and crypts, apply 10 per cent. silver nitrate solution over ulcerated surface and carry down into crypts as well. Then dust thymol iodide with powder blower over gland and throw it into diseased lacunæ. Where tonsils seat of recurring inflammation, but patient objects to removal, use electric cautery. Selecting 3 or 4 crypts at a time, apply 10 per cent. cocaine solution to interior of each with fine-pointed cotton applicator. When anesthesia sufficient, introduce curved electrode into each crypt and turn on sufficient current to produce a white heat before electrode removed. Patients thus treated are freed from further attacks. *Bishop.* 241

Tracheobronchial Glandular Enlargement. DIAGNOSIS. Percussion of thoracic vertebræ, especially those above level of inferior scapular angles, affords tonal changes of clinical value in this condition; these must always be correlated, however, with mural signs in the individual case. In comparison with other (neoplastic) mediastinal masses, tracheobronchial tumors affect vertebral percussion sound less, and oftener produce dullness than hyperresonance. *Da Costa, Jr.* 180

Tuberculosis. TREATMENT. Garlic, 1 fluidram (4 c.c.) of the expressed juice or 2 drops of the essential oil three times a day, recommended in all forms of tuberculosis. Externally, poultices of crushed garlic bulbs, 1 part, with 3 parts of lard, or garlic ointment (50 per cent. of the juice in petrolatum) are to be applied.

Mercury biniodide, $\frac{1}{30}$ grain three times a day internally, and unguentum hydrargyri externally, give the best results next to garlic. In cases of severe toxemia, where more active elimination is necessary, the following treatments give best results: (1) Normal saline, 220 c.c., at 106° F.; also of value in hemorrhagic cases, intravenously. (2) Guaiacol, 32 drops in 220 c.c. of sterile water, at 106° F., intravenously. (3) Mixture of sodium salicylate, guaiacol, and glycerin, of each, 32 grains or drops in 220 c.c. of sterile water, at 106° F., intravenously. (4) A 2 per cent. aqueous solution of pure phenol (Bacelli's treatment), 1- to 5- c.c. doses hypodermically or by Murphy's drip in 10-c.c. doses; the kidneys must be watched. Cases of continued septic temperature, not improving from the above, should be treated surgically. For making the soil unfavorable for the tubercle bacillus, phosphorus, $\frac{1}{1000}$ grain t. i. d., and Fowler's solution, 1 drop t. i. d., give the best results. *McDuffie.* 431

Tuberculosis, Articular. TREATMENT. X-rays found useful in bone and joint tuberculosis. Aluminum or thick leather shield to be used. Treatment not to be employed in children less than 5 years old, and in older children epiphyses should preferably be avoided. Best effects noted in cases with sinuses and secondary infection. Part exposed from all sides to an erythema-producing dose; three weeks then allowed to elapse before repetition. Joints healing under the rays show but little limitation of motion. Abscesses with skin about to yield should not be rayed, owing to danger of necrosis. *V. Schede.* 165

Tuberculosis, Laryngeal. TREATMENT. Scarlet red, 10 per cent. in a mixture of equal parts of sesame oil and petrolatum, applied twice daily in cases with laryngeal lesions, whether ulcerative or not. No unpleasant results. Prompt relief of pain in every case, tendency of ulcerations to heal, hoarseness improved, and, where only infiltrations and edema, swelling markedly less after a few weeks. *Hinman.* 306

Tuberculosis, Pulmonary. DIAGNOSIS. Contrast between resonance of air-containing tissue and deadness of the airless spot is striking when light percussion practised. If on increasing force of stroke dullness remains, one may conclude that there is an extensive area of airless tissue. A shorter apex on one side is of immense significance. In infiltrated apex a long, held inspiration gives a duller note on percussion than is found over healthy side; this is often of value in doubtful cases. Where history, symptomatology, and course of disease point to tuberculous infection, one may safely diagnosticate tuberculosis without any definite auscultatory signs. *Fishberg.* 54

The X-rays will demonstrate much more accurately the extent of involvement than any other diagnostic agent. In determining the operability of a surgical condition in a patient suffering also with pulmonary tuberculosis, or in giving a prognosis in a known case of pulmonary tuberculosis, radiographic examination is essential. *Moore.* 367

Treatment. Frequency of gastric atony and dilatation, with resulting digestive symptoms and secondary toxic manifestations (aches and pains in chest and right hypochondrium, morning depression, insomnia, hepatic weight, vertigo, chilliness an hour after meals, fleeting edema, etc.), in pulmonary tuberculosis pointed out. Treatment: (1) Support to stomach and abdomen by Rose belt of plaster or moleskin, followed, upon improvement, by supporting belt to be worn continuously and later in daytime only. (2) No liquids with meals or for two to two and one-half hours after. (3) Lunch to be light. (4) Recumbency, with attempt to sleep for one-half to one hour after each meal. (5) No alcohol or fresh bread. (6) Medicinal treatment: Tr. nucis vomicæ, acidi hydrochlorici dil., āā f℥ss (15 c.c.); glyceriti pepsini, f℥iss (45 c.c.); aq. menthæ pip., q. s. ad f℥iij (90 c.c.). Teaspoonful in ½ glassful of water after meals. If much flatulence, add chloroform water, 2 or 3 minims (0.13 or 0.2 c.c.) to the dose, until relieved. (7) Cold shower or sponge baths, with needle bath to abdomen, followed by brisk rub, each morning. (8) Where mucous passages and flatus: Turkish towels, wrung out in hot water, to be applied to abdomen for one-half hour after meals. (9) Thorough mastication of food and abstention from worrying at meals. (10) Fats to be avoided at first. *F. N. Robinson.* Page 95

Measures to overcome fever described: (1) Where prolonged fever drains on patient's strength, pyramidon is drug to be preferred—5 grains (0.3 Gm.) in cachet at night, or, if necessary, three times a day. In neurotics bromides sometimes efficacious. (2) Rest in recumbency to be insisted on until temperature does not rise above 99° in men or 99.2° in women, when patient may sit in chair for two hours, then recline on couch, in open air if possible. Exercise then gradually increased. (3) Where severe cough, sedative mixture tends to prevent fever from the exertion and autoinoculation. (4) Where rest and drugs fail, cautious use of tuberculin (T. R. or B. E.), beginning with only $\frac{1}{100000}$ mg., exerts antipyretic action, though often only for short periods. Tuberculin acts best in cases free from fever while at rest, but febrile when exercise taken. *Wethered.* 120

Value of auscultation at acromion process in apical tuberculosis emphasized; it amplifies all auscultatory signs over apices. Of 28 cases in first stage, all showed acromial breathing. *Magida.* 239

Guaiacol administration, beginning with 5 minims (0.3 c.c.) three times daily, increasing by 2 minims (0.12 c.c.) a week up to 12 or 15 minims (0.75 to 1 c.c.), and continuing the drug for four months or longer, yielded highly satisfactory results. The drug should be taken immediately before food. The following formula was used: Guaiacolis, f℥j (4 c.c.); alcoholis, syrupi limonis, āā f℥j (30 c.c.); spiritus chloroformi, f℥ij (8 c.c.); aquæ, q. s. ad f℥vj (180 c.c.). One-half ounce three times daily. *Mayberry.* 366

Ulcer, Gastric. Diagnosis. Following combinations practically assure a diagnosis of ulcer: (1) Tender point with occult blood. (2) Hypersecretion with tender point. (3) Hypersecretion with occult blood. (4) Tender point with repeated positive thread tests. (5) Tender point with hematemesis. (6) Hematemesis with hypersecretion. (7) Hypersecretion with positive thread tests. *Verbrycke.* 114

Treatment. Cream diet used with success in 26 cases. One quart (4 glasses) a day yields 1800 calories. To this may be added 600 c.c. of milk or 6 slices of bread or 5 tablespoonfuls of oatmeal gruel or 3 eggs. Cream causes inhibition of gastric secretion. If not tolerated in full strength, it may be diluted with equal or greater amount of milk. Ice-cream a useful variant. Some marked cases progressed to good recovery in two or three months under cream diet. Method adapted for bed or ambulant treatment. Also useful as prophylactic against recurrence of ulcer. *Nichols.* 169

Ulcers. Treatment. In indolent tuberculous ulcers, 1 or 2 doses of old tuberculin usually cause complete healing in a week or two. *Whitfield.* 56

Urticaria. Treatment. Pituitary and adrenal preparations found useful. *Morris.* 11

Vaccination. Tincture of iodine, applied to the vesicle as soon as possible after the latter has formed, and repeated two or three days later, either prevents pustule formation or so limits it that the several pustules formed do not coalesce. The vesicles soon dry up and form a small scab. In not one of 116 cases so treated was there secondary infection with pus-producing bacteria, whereas in those not so treated about 30 per cent. were secondarily infected. There is no interference with the immunizing process. The scab should be kept covered with sterile gauze for several weeks. In cases of secondary infection with pus formation best results are obtained by removing the scab and pus, painting the base with tincture of iodine, and, when dry, covering with bismuth subiodide powder. Superfluous granulation tissue should be treated with a stick of silver nitrate. *Albert and Alden.* 369

Vomiting. Treatment. In paroxysmal vomiting of chronic, recurrent character, where no organic disease of stomach is discoverable, adrenal gland treatment is frequently of value. *Berkeley.* 20

Vomiting of Pregnancy. Treatment. Apomorphine, $\frac{1}{36}$ grain (0.0018 Gm.) in a teaspoonful of water, found effectual in a severe case; likewise in other cases of vomiting or nausea. *Field.* 182

Thyroidin in 1½-grain (0.1 Gm.) tabloids given in several cases, with complete curative effect. *Koreck.* Page 284

Brilliant results obtained in some cases by administration of thyroid preparations. *Walker.* 409

Vomiting, Postanesthetic. TREATMENT. When vomitus of hemorrhagic type, give 5 to 10 minims (0.3 to 0.6 c.c.) of 1 : 1000 epinephrin hydrochloride in a teaspoonful of water. Cessation of vomiting follows. *Keay.* 93

Whooping-cough. TREATMENT. Vaccine containing 20,000,000 dead *B. pertussis* per c.c. used in about 70 cases. Infants received ⅓ c.c. as initial dose and ⅔ c.c. four days later; others, ½ c.c. and 1 c.c. Prompt, uniformly good and often striking results obtained. In cases already having a bronchopneumonia as complication, a mixed vaccine should be used. *Davidson.* 118

Silver nitrate in 2 per cent. solution applied to throat in 95 early cases to prevent spread of infection downward from pharynx. Useful results in 84 instances. Mucus secretion prevented and coughing spells due to irritation by secretion minimized. Silver solution applied every day at first; later, and in older children throughout, on alternate days. *Ochsenius.* 182

Epinephrin, 3 minims (0.2 c.c.) of 1 : 1000 solution, given every four hours in case in a child 7 years old, ill six weeks. Paroxysms markedly reduced almost at once. Drug then continued 3 times a day for three weeks more. *Lord.* 280

Wounds. TREATMENT. Stream of air from ordinary electric fan or register found useful in drying and promoting healing in large wounds, obstinate leg ulcers, and discharging eczema. *Heisler.* 182

Mixture of saturated magnesium sulphate solution and glycerin in equal parts recommended for dressing infected wounds. *Freese.* 304

Following summary presented: *A. Incised wounds:* 1. Paint with iodine. 2. Shave dry. 3. Tie all bleeding points. 4. Remove foreign substances. 5. Suture all tendons and nerves. 6. Again apply iodine in and around wound. 7. Suture wound. 8. Apply dry sterile dressing.—*B. Lacerated wounds:* 1, 2, 3, 4, 5, same as in *A*. 6. Cut away all damaged tissue. 7. Again apply iodine. 8. Suture wound.—*C. Punctured wounds:* 1, 2, same as in *A*. 3. Enlarge opening for drainage. 4. Insert rubber drain. 5. Alcohol dressing. 6. Tetanus antitoxin.—*D. Gunshot or bullet wounds:* 1, 2, same as in *A*. 3. If much bleeding, enlarge opening and tie vessels. 4. If nerve injured, suture nerve. 5. Close wound. 6. Alcohol dressing. 7. Tetanus antitoxin. *Hoag.* 307

Book Reviews

SPEZIELLE PATHOLOGIE UND THERAPIE INNERER KRANKHEITEN. In 10 Bänden, Herausgegeben von Friedrich Kraus und Theodor Brugsch in Berlin. Lieferung 1-4 (1. Band, 1. Teil, Seite 1-238, mit 5 farbigen und 4 schwarzen Tafeln. Lieferung 5-8 (II. Band, 1. Hälfte, Seite 1-240, mit 3 farbigen Tafeln). Berlin und Wien: Urban & Schwarzenberg. New York: Rebman Company, 1913. Paper-bound, Each Issue: 2 marks (50 cents).

The first part of this imposing and altogether excellent system of medicine contains an article on diabetes, including levulosuria, heptosuria, pentosuria, etc., by Prof. Magnus-Levy; an unusual and very valuable section on disturbances of intermediate metabolism,—amino-acid diathesis, physiology and pathology of water elimination (including diabetes insipidus), and cachexias,—by Prof. Umber, and a 200-page, well-illustrated chapter on gout, by Prof. Brugsch.

The second portion of the system issued—actually the first half of the second volume, the terminal sections of the first volume not having yet been issued—contains a section on infection and immunity in general, with a discussion of immunodiagnosis and therapy, by Prof. R. Kraus, of Buenos Aires, and an article on typhoid and paratyphoid fevers, by Prof. G. Jürgens, of Berlin. The former contains paragraphs on the technique of bacteriologic study of the blood and urine, of the demonstration of blood protozoa, of filterable viruses; on natural and artificial immunity, antigens and antibodies, opsonins, bacteriotropins, phagocytosis, antitoxins, agglutinins, anaphylaxis, etc. The serum diagnosis of various pathologic states is also comprehensively considered, and, finally, serum therapy. Typhoid fever is discussed in thoroughgoing fashion, but only the section on treatment is unfinished, the greater part of this section, as well as the discussion of paratyphoid fever, being left for a succeeding number of the work. The contributors to the initial sections of this system of medicine—which is to include altogether ten volumes—are to be congratulated on the excellence of their respective articles.

Clinical Hematology: An Introduction to the Clinical Study of the So-called Blood Diseases and of Allied Disorders. By Gordon R. Ward, M.D. Fellow of the Royal Society of Medicine, the Medical Society of London, etc. Octavo of 394 Pages, Illustrated. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, $3.50, net.

This volume deals with the *clinical* study of the blood, which, the author holds, has been too much overshadowed by exclusively pathologic investigation. Much attention is paid to the proper classification of blood diseases. There are systematically taken up: The blood-forming organs; the method of blood examination; generalized affections of blood-forming tissues; chloroma and myelemia; Hodgkin's disease and Gaucher's splenomegaly; localized affections of blood-forming tissues (leukemias, etc.); increased red-cell formation; acute aplastic anemia; atrophic and other secondary anemias; cholemia; Addisonian anemia; hemochromatosis, etc.; parasitic diseases of the red cells; cyanosis; leucocytosis; chlorosis; hemophilia; purpura; leukanemia; the blood in surgical diagnosis; methods of treatment, and the blood in various diseases. The plan of this work is an excellently conceived one, and the book cannot fail to prove of great practical utility. The most recent gleanings in this field are referred to, at least in their practical bearings. The illustrations are not numerous, but the clinical photographic reproductions are striking. The work can be warmly recommended.

Materia Medica, Pharmacology, Therapeutics, and Prescription Writing, for Students and Practitioners. By Walter A. Bastedo, Ph.G., M.D., Associate in Pharmacology and Therapeutics at Columbia University, etc. Octavo of 602 Pages, Illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, $3.50, net.

This interesting volume is, for the most part, an adaptation of lectures delivered at Columbia University. In its preparation the author has laid most stress upon matters bearing on practice, even to the exclusion of some subjects of great pharmacologic interest. In Part I are considered general topics, such as the constituents of organic drugs, the various types of pharmaceutic preparations, active principles and assay processes, dosage, modes and time of administration, and the sites and modes of action of drugs. In Part II, occupying the bulk of the volume, the various individual remedies are systematically considered, beginning with the locally acting drugs, and continuing with those agents which have a general systemic effect. Part III, covering about 20 pages, is on prescription writing.

There is much to commend in this book. The views introduced are strictly up to date, and the text, as a whole, is decidedly original as well as useful. Among the meritorious features are the divisions of ammonium compounds into those which are and those which are not dependent for their activity on the liberation of ammonia gas—a grouping which facilitates proper understanding of the physiologic action of these compounds—and the very detailed consideration of the action of digitalis, with due attention to its effects on the various forms of cardiac arrhythmia, the significance of which has recently been brought to light by Mackenzie, Lewis, and others. In general, the chief drugs in daily use are taken up at special length, while to those of inferior utility but little space is devoted. The author has clearly made the attempt, wherever possible, to correlate clinical use with pharmacologic laboratory data, and appears to come closer to the realization of a rational scheme of drug therapeusis than is afforded in any other textbook so far issued. As a minor point in criticism, objection might be made to the systematic omission of the official Latin names of the drugs considered. On page 204 the dose of ammonium carbonate has been inadvertently omitted, and on page 90 the misleading statement is made that "perhydrol (unofficial) is the magnesium peroxide." Apart from a few slips such as these, the work is certainly entitled to high praise, and can be warmly recommended, both to the practitioner, and for the use of the undergraduate student.

The General Field

Conducted by A. G. CRANDALL

High Appreciation

A Southern newspaper has declared the present occupant of the White House to be the greatest of all American presidents.

Numerous predecessors of the present incumbent have been favored in a similar manner.

There is no time during which a chief magistrate is referred to in such high terms of praise as while the offices are being filled, but should a rival aspirant receive some much-desired appointment it is more than possible that the paper above referred to would somewhat modify its views.

American history shows few evidences of anything but the most sincere attention to public duty on the part of the various presidents. Each has had his strong and his weak points, and it is probable that if Mr. Wilson does not measure up to the enthusiastic estimation of his editorial admirer it will not be through any lack of conscientious effort. But it would be too much to expect that he should have continued very long in his present high office without antagonizing some of those who at the outset of his presidential term and with profitable offices in view had been most lavish in his praise.

* * *

Textbooks Needed

It is getting to be tremendously hard for the average husband to meet the requirements. A large number of women are having their husbands chased from one part of the country to the other, eventually apprehended, and hauled into court to explain the reasons why their loving wives cannot have the benefit of their company. Needless to say, the reasons given are seldom satisfactory. On the other hand, many women are appealing to the courts to try to induce their husbands to break away from the enticements of home and go out into the wicked world and earn the wherewithal to pay some of the numerous household bills.

All of this is not in the least surprising. While a great variety of information has been standardized and reduced to textbook form, there is apparently no reliable textbook on matrimony. Many a man who has been conspicuously successful in business or some profession has seemed to get terribly muddled in his matrimonial affairs. On the other hand, there are men who, although failures with everything else, have been uniformly successful in several matrimonial voyages. Some of these specialists should prepare a textbook for the guidance of amateurs or those so engrossed in their cares of business that they have never been able to give the more important subject the attention which it deserved.

* * *

Jupiter Pluvius—Street Cleaner

One of the effective arguments formerly used to reconcile taxpayers in the large cities to the prospect of extra assessments for asphalt streets was the alluring picture of a daily wash of the smooth thoroughfare by

enthusiastic disciples of hygiene wearing white uniforms.

As a matter of fact, however, this daily cleansing program is not usually carried out. There is always some contractor who has a pull and who does not take sufficient interest in public health to assume the little additional expense necessary to flushing the streets.

Jupiter Pluvius, however, has taken up this job the present season and carried it out with great success. Frequent showers have cleansed the streets in numerous cities in a manner practically without precedent.

* * *

Eliminate the Rodents

When a case of plague develops in a seaboard city, the rat is immediately placed under suspicion.

The next move is promptly to begin a campaign of extermination, which usually results in a considerable decrease in the rat population before the excitement subsides.

It would be a good thing in many ways if this campaign could be continuous. The rat is a source of much economic loss to the community and his capacity for distributing disease germs is undoubtedly underestimated. There is probably no more glaring instance of a habit of neglect than that indicated by the comparative immunity which has been enjoyed by the rat and his numerous descendants.

The fact is our easy-going methods are responsible for enormous unnecessary losses each year. Destructive insects are allowed to ravage the shrubs along the roadside until they develop into an army of devastation which attack the forests. Irresponsible recruits to our population who come from foreign countries where the laws against trespass are rigorously carried out are permitted to shoot insect-destroying song birds and in many ways to make themselves generally obnoxious through our easy-going tolerance.

* * *

Retaliation

The physician is so much the property of the public that he is usually more or less a public victim. Like the clergyman, the doctor must submit to all kinds of imposition and retain his good nature.

As long as this form of persecution is good-natured, the physician can afford to regard it with tolerance. But when slander gets in its work, it is a serious matter.

There are occasions in the experience of many doctors when a real service could be done the medical profession and the public as well by instituting suits for damages to the professional reputation. Almost any physician would hesitate to do this, which fact being understood submits a great number of doctors to much injustice. A few sharp retaliatory damage suits would undoubtedly develop a disposition to go slow in circulating slanderous tales about the doctor.

* * *

Old Styles in Medication

A prominent physician of Cincinnati recently gave his testimony in defense of an old remedy which has more recently gone out of style in many sections of the country. This gentleman says that in Cincinnati, where veratrum viride is used very generally and in large doses, they consider it a perfectly safe remedy when properly administered. He

would recommend its use highly in eclampsia.

Another well-known medical writer advises his colleagues to go back to the old reliable sulphur in the treatment of boils and carbuncles. He indicates that the philosophy of the ancients was correct, and that the recommendation of old-time housewives that the "system" is benefited by a spring course of cleansing of the blood by sulphur and molasses was strictly scientific and worked out in modern practice.

Careful students are doubtless well repaid for delving into the more ancient textbooks and reviving some of the favorite remedies of the pioneers of the last century, methods of cure which have been superseded by a succession of new expedients, many of which, no doubt, were little, if any, improvement over the methods of the past.

* * *

The Economic Phases of the Liquor Question

It is but natural that physicians, who above all others become skeptical of dogmatism, should fail to endorse the views of extremists in the matter of restricting the sale of intoxicants. They see so many people of supposed exemplary habits either die in middle age or become permanently crippled, and see so many of more indulgent tendencies live on and on to an advanced age, that they fail to echo the enthusiastic zeal of those who would correct the manner of life of their fellows.

There is one phase of the liquor question which no thoughtful person can fail to appreciate, namely, the economic. The head of a family who has but limited earning capacity, but who indulges himself even sparingly in alcoholics, may die in middle life not from the physiologic effects of his drinking habit, but from the privation and lack of hygienic surroundings engendered by his bad judgment in spending his limited funds for luxuries rather than necessities. The saloon may be the poor man's club, but it is a very expensive club to belong to, especially if he is of social temperament and predisposed to the treating custom.

The contentions of those who take an extreme view as to the iniquities of the liquor traffic are in this matter well sustained. As an economic problem the liquor question takes first rank among the great topics of the day.

* * *

The Comic Opera War

There are many thrills associated with the dispatch of our armies and warships on various patriotic errands, but somehow the thrills failed to materialize in connection with the recent military occupation of Vera Cruz.

About the most gratifying phase of the situation thus far is the fact that the health of the troops has apparently remained good. This is an achievement which reflects great credit upon the medical branch of the army, but when it comes to the matter of military glory there is little to be said. It is true that thus far no scandals in regard to the quality of food supplied have been reported to arouse public disgust, but if 25 average citizens of the United States were stopped in succession on the street and asked just why a large number of warships and several thousand

troops were spending the summer at Vera Cruz the probabilities are that few of them would be able to give any real substantial reason.

The Mexican situation has, however, provided inspiration for at least a half-dozen comic operas which will, no doubt, be forthcoming in due time. The commanding military genius of Mexico should, and undoubtedly will, occupy a conspicuous place in these dramatic exhibits, and perhaps his $400 bathtub will not be overlooked.

* * *

Woman's New Weapon

As the shipment of beef cattle naturally falls off during the trying weather of midsummer, there is usually a certain justification in the prices of dressed meats advancing at this season, when they must be shipped at extra heavy expense for refrigeration.

All these natural causes, however, are airily waved aside by the Housekeepers' League, which is now advising a boycott.

Really, when you come to think it over, it is not such a bad idea to boycott the high-priced meats during the heated term,—in fact, there are other foods the use of which could be restricted to considerable advantage during the same period.

All that would be necessary to create terror and consternation among food dealers would be for the entire population to go on a food strike for about a month, or say forty days, like the justly celebrated Dr. Tanner. There would thus be an opportunity to try out the starvation cure for cancer and various other diseases for which this method is said by certain eminent cranks to be the greatest known specific. At the end of forty days most of the objectionable food barons would be in bankruptcy, and doctors and undertakers would be enjoying a badly needed vacation. The human race would have been largely regenerated and Upton Sinclair would have had a chance to take his own treatment. The only danger might be that the water companies would form a general trust and put up the price of plain aqua pura.

* * *

Cotton "Picker Rooms"

In the "picker rooms" of the New England cotton mills the air becomes so saturated with lint that under certain circumstances the introduction of a sheet of flame may act like an explosion of gunpowder. This condition of the atmosphere in workrooms occupied by a considerable number of people constitutes one of the most perplexing fire-hazard problems known in these industries.

While this question has assumed large proportions with factory owners in determining how they may protect their plants from the ever-present danger of fire, the physiologic side of the problem has apparently not interested them so much. From the somewhat crude standpoint of the outsider unfamiliar with the technical details of cotton spinning, the solution of the matter would seem to be the installation of exhaust devices primarily providing for more hygienic conditions for operatives and let the resulting reduction of the fire hazard be incidental.

Notes and Comments

F. A. DAVIS COMPANY, Publishers A. G. CRANDALL, Manager

TESTING THE ANTIFAT REMEDIES.

The Department of Agriculture has been trying out on some of its own employees the obesity remedies which are advertised conspicuously in a certain class of newspapers, and report that they are worthless for the purpose named. They have been sending out the result of these experiments to the morning papers with the hope that some of these publications will have the interest of their patrons sufficiently at heart to publish this warning, and perhaps save a few unfortunates from being swindled out of their money and possibly injured from the health standpoint.

One victim of these tests tried out a widely advertised prescription for reducing flesh during a period of six months, as a result of which he gained 2½ pounds. Another remedy was tried, the subject of the tests rigorously following out an incidental diet schedule, and succeeded in accomplishing a loss of 18 pounds, 10 of which were promptly restored as soon as he resumed a normal mode of life.

There is little doubt that a great deal of physical harm is accomplished by these remedies, which are sought by people who have become alarmed over the prospect of steadily gaining in weight. These people have an idea that they are showing unusual sagacity in steering clear of the legitimate medical profession and patronizing these unscrupulous fakers. For this reason it seems to be profitable to advertise quack remedies, and the newspapers are few and far between who do not aid and abet such swindles.

Postal authorities are quick to issue a fraud order where a "get-rich-quick" scheme is in evidence. As public health is really of primary importance, there should be some way accomplished to exercise the same form of restraint upon those who advertise sure cures for conditions which are beyond the remedial powers of the educated physician.

PHENALGIN—A DEPENDABLE ANALGESIC.

The general medical practitioners of the country are using Phenalgin more extensively than ever before. The reason for this is easily found in the exceptional efficiency of this well-known remedy as a prompt and harmless reliever of pain. Unquestionably, one of the noblest missions of the physician is to alleviate physical suffering, even though he cannot always eliminate it.

A short time ago, recourse to opium and some of its derivatives was the only reliable means of satisfactory analgesia. One does not need to mention the fearful results that all too often followed the exhibition of this insidious drug. As appreciation of the effectiveness of Phenalgin has extended, the use of opium and its preparations for the relief of pain has materially diminished, and now the hypodermic syringe is rarely employed except in extreme or emergency cases.

(CONTINUED ON ADVERTISING PAGE 33.)

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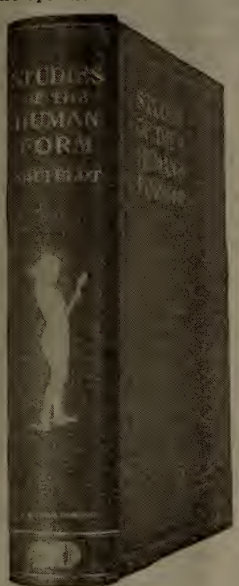

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DRUG TREATMENT OF DIABETES.

In the treatment of diabetes mellitus opium, of course, has long held first place among therapeutic agents. In the hands of many physicians, Papine (Battle) has produced identical results with those derived from the administration of opium or codeine. The employment of small doses at the beginning, and thereafter increasing until the required effects are produced or until narcotic symptoms are exhibited, when the dose will be held stationary or reduced, is the practice usually followed.

THROUGH TWO GENERATIONS.

For several decades, a certain "microbe killer" has been offered as a source of cheer and encouragement to the unfortunate, and now the United States Government has destroyed a large consignment of the killer for alleged misbranding under the Sherley Amendment to the Food and Drugs Act. The Government reports that a circular accompanying the shipment represented the medicine as being a remedy for practically every ailment to which the human system is subject.

Physicians whose educational qualifications have been regarded with justifiable suspicion are yet permitted to practise in many States, because they have been so long established. The antiquity of the microbe killer might, in a similar way, have been expected to throw the mantle of responsibility over the product, but the Government has considered otherwise. No wonder there is business depression when a large manufacturing plant is not allowed to claim the earth for their "cure-all."

A BLOOD-PRESSURE PRIMER.

The busy doctor who does not have the time to take up the study of blood-pressure in all its ramifications may easily acquire the essentials by securing a copy of "Blood-Pressure Primer," by Francis Ashley Faught, M.D., author of "The Essentials of Laboratory Diagnosis," etc.

Dr. Faught has crowded a great deal of information into this book of 121 pages, which, neatly bound in a leatherette cover, is supplied by the publishers, G. P. Pilling & Son Co., Philadelphia, Pa., at the surprisingly low price of 25 cents.

A SYSTEMIC BOOST.

It is safe to say that the average physician is called upon to prescribe a tonic more frequently than any one other form of medication, unless it be a cathartic. Patients who are patients solely because they are tired, "run down," and generally debilitated are constant visitors at the physician's office. Such individuals need something that will boost them up to their normal point of resistance and then hold them there; in other words, not a mere temporary stimulation, with secondary depression, but a permanent help to the revitalization of the blood and a general reconstruction. Pepto-Mangan (Gude) is not only prompt in action as an encourager of appetite and better spirits, but is also distinctly efficient as a blood builder and systemic reconstituent. It is pleasant, non-irritant, free from constipating effect and does not stain the teeth. It is thus a general constitutional tonic of positive service in all conditions of general devitalization.

HEALTH PRESERVATION AT THE PANAMA-PACIFIC EXPOSITION.

It is proposed to make the question of health preservation one of the most conspicuous features of the Panama-Pacific Exposition next year.

One of the novel exhibits at the Chicago World's Fair was the Parliament of Religions. Next year the great question of a general uplift of humanity is to be given the widest consideration.

It is expected that fully 500 gatherings, taking

up the various phases of the uplift, will be held at the exposition. Such a wholesale discussion ought to cover practically every scheme of modern life, from rural conditions affecting Kansas to the regulation of social customs among the Igorotes. It is reported that 221 gatherings are already scheduled to take place and that in some instances as many as 40,000 delegates will be present.

One of the great objects of the proposed gatherings is to make people better acquainted with the approved methods of hygienic living. The exponents of fresh air should be there in a large body, and undoubtedly will be. Those who believe in keeping a set of books showing how many calories of protein, fats and carbohydrates they have consumed during the last six months will here have the time of their lives.

Another thing which will be of interest to the medical profession is the proposed gathering of nurses, which will be represented by 6000 nurses from 15 countries. There ought to be a great deal of good advice given as to how to manage the grouchy husbands of sick wives, the cook who objects to having the kitchen mussed up and, of course, the occasional doctor who does not seem to know his business.

All the principal countries will have modern health and welfare exhibits, including complete hospital equipments. Cuba will have a model of the fever mosquito as large as an ostrich.

The reports and addresses on the Panama Canal work, which will be considered at sessions of the International Engineering Congress, will be afterward published in 11 large volumes.

One of the practical exhibits now announced which should appeal to all thrifty people from everywhere is a proposed dental clinic of 25 to 50 chairs, which will be conducted in connection with the meeting of the Panama-Pacific Dental Congress, over 3000 delegates to which are expected to be present. People who become tired of wandering about the wide expanses of the Exposition can go and settle themselves down for a nice rest in a dental chair and incidentally have their teeth renovated.

It is stated that the sessions of these various congresses will be held for the most part in the new permanent auditorium to cost over a million dollars, of which there is a seating capacity of 10,000 in its main hall, with eleven subsidiary halls. Visitors will apparently have to keep tolerably busy or they will miss a great deal that is going on in this new auditorium.

UNDUE LEVITY.

A young woman anarchist of New York, who has been serving out a brief sentence for disorderly conduct and who has been trying out the new-style expedient of a hunger strike seems to have

made the wrong kind of a hit with the newspaper reporters.

By an unlucky chance she found that she had a woman to deal with in the person of Commissioner Davis. All the alluring influences of lovely femininity in distress were a total failure. Far from being disturbed by the starvation threat, Commissioner Davis accepted the situation with great equanimity, watching her prisoner carefully to note her physical endurance and promising that she would be fed with a tube after the approved English style, only when it seems to be absolutely necessary.

Now, it is no light matter to deprive a young woman of the privilege of martyrdom. It becomes a very tame affair when the authorities cheerfully acquiesce instead of becoming excited and promptly administering nourishment through the nose. The most annoying thing about it is that the New York reporters instead of picturing the sufferings of Miss Reba Edelson and thus harrowing up feelings all over Manhattan Island have treated the whole matter as a joke.

PROBABLY IRRESPONSIBLE.

A New York physician was recently sentenced to serve one year in the penitentiary for selling morphine without a label. He was also charged with having sold a great quantity of heroin tablets.

No doubt, the fight for existence in thickly congested city districts produces many temptations among physicians and druggists to evade some of the stringent laws restricting the sale of cocaine and the opium derivatives. There are, in fact, many ways of evading laws regulating the prac-

tice of medicine and the dispensing of drugs. Yet it seems almost incredible that any physician who is normal mentally would take such desperate chances with his professional reputation. The probabilities are, therefore, that this unfortunate physician had become so extensively addicted to the use of morphine himself as to be practically irresponsible for his acts.

SOME PLAIN FACTS ABOUT A SOPORIFIC.

For nearly forty years we have been making for the medical profession what we believe to be the ideal sedative, soporific agent, and the fact that its use at the hands of physicians steadily grows seems to be the best proof of its therapeutic value.

Until within late years we put this product on the market under the name of Daniel's Concentrated Tincture of Passiflora Incarnata, but pirates began counterfeiting and forced us to protect the reputation our product had earned, and accordingly we gave it the distinctive name, Pasadyne.

We grow our own plants on a large acreage and have done so all these years. In the manufacture of our product we draw upon every pharmaceutical advance, for we want to maintain the highest possible standard for Pasadyne (Daniel).

Hundreds of able clinicians have proven to their own satisfaction that Pasadyne (Daniel) is equal in therapeutic power to the older somnifacients, and is free from their disadvantages. Whenever you need a sedative or a soporific, you may prescribe Pasadyne (Daniel) with the fullest assurance that it will produce the results you want. It will not fail you.

A sample bottle may be obtained by addressing the Laboratory of John B. Daniel, 34 Wall Street, Atlanta, Ga.

TO SUPPLY THE WORLD WITH BANANAS.

One of the officials of the United Fruit Company has said that it was his ambition to be able to supply the entire world with bananas. There seems to be a great difference of opinion as to the usefulness of the banana. A Philadelphia doctor was in the habit some years ago of promptly asking in every case of juvenile indigestion: "Has he been eating bananas?" This doctor can see nothing but harm in the banana. Another physician not far distant was constantly preaching its great nutritive value and general usefulness.

Bananas are said to be harmless to all classes of people when they are cooked, but very few are prepared that way. As ordinarily consumed they are undoubtedly harmful, being often eaten excessively by children, who do not realize the importance of Fletcherizing the seductive fruit. The realization, therefore, of the ambition of this prominent fruit dealer means a considerable increase of stomachache to the rising generation.

Some Hot-Weather Hints.

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Some Hot-Weather Hints.

(*Continued from page 38.*)

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